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CAREER PATHS AND PROFESSIONAL DEVELOPMENT FOR ACQUISITION MANAGERS IN THE DEPARTMENT OF DEFENSE

HEARING

BEFORE THE

TASK FORCE ON SELECTED DEFENSE PROCUREMENT MATTERS

OF THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

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CAREER PATHS AND PROFESSIONAL DEVELOPMENT FOR ACQUISITION MANAGERS IN THE DEPARTMENT OF DEFENSE

THURSDAY, DECEMBER 13, 1984

U.S. Senate,
Committee on Armed Services,
Ad Hoc Task Force on Selected
Defense Procurement Matters,
Washington, DC.

The task force met, pursuant to notice, at 2:07 p.m., in room SD-366, Dirksen Senate Office Building, Senator Dan Quayle (chairman of task force) presiding.

Present: Senators Quayle and Bingaman.

Staff present: Alan R. Yuspeh, general counsel; Jeffrey H. Smith, minority counsel; David S. Lyles, professional staff member; Patricia L. Watson, research assistant; Marie Chaillet, staff assistant; and Edward McGaffigan, Jr., assistant to Senator Bingaman.

OPENING STATEMENT BY SENATOR DAN QUAYLE, CHAIRMAN

Senator Quayle. The committee will come to order.

This is the fourth hearing that we have had since September on the general overview and outlook on the whole issue of the procurement and acquisition process.

We will have another hearing next Tuesday at 10 a.m. on ideas, ways and means by which we can hold down weapon system costs. I can assure everyone that the issue of procurement and acquisition and how to get more efficiency within the system will be very much of a high profile and high priority issue as far as this Senator is concernced.

I think I am also speaking for the chairman of the Senate Armed Services Committee and others on the Armed Services Committee who want to get into the procurement process and look at ways that we can make it more efficient.

I don't think there is any secret that after the political process is concluded, the defense dollars that will be allocated to the Department of Defense will be less than had been suggested or less than what had been anticipated.

With that base line of having fewer dollars available to provide for resources and equipment, we simply have to be more efficient in the way we conduct our procurement activities. There are many ways to approach the procurement issue.

Today we have some good witnesses who are going to discuss ways to look at the career paths of people who are in the procurement process. We are going to ask for better efficiency out of our procurement process and more cost effectiveness.

We are going to have to look first at the people who are in the system. Who are they? What are they doing? What do they need? How can this be improved? We need to ask what their qualifications are, what their background is, what operational experience they need before they can become program managers, what kind of career path does one have from the very beginning when they get into the Army, Navy or Air Force to get to the top?

Perhaps there should be a different allocation of flag officers. How many flag officers do we have right now in the procurement sector? I think we will probably find it is rather minimal. Should we have more? We should ask that question, should we have more flag officers without raising the ceiling?

These are some of the questions that we will be asking our witnesses.

Before I turn to our witnesses, I call on Senator Bingaman for any opening comments he may have.

Senator **Bingaman**. I don't have any. I think the subject of the hearing is excellent. I commend you for holding the hearing. I look forward to the testimony.

Senator **Quayle**. Thank you very much.

Our witnesses are Rear Admiral Sansone, Major General Stallings, Major General Steere, and General Miley. I think we will begin in that order.

The witnesses' prepared testimony will be printed in the record as if given. I will ask the witnesses to summarize somewhat briefly and to the point the issues they want to bring before the committee.

We will begin with Admiral Sansone.

STATEMENT OF REAR ADM. JOSEPH S. SANSONE, JR., U.S. NAVY, DEPUTY CHIEF OF NAVAL MATERIAL (CONTRACTS AND BUSINESS MANAGEMENT)

Admiral **Sansone**. Thank you, Mr. Chairman.

Mr. Chairman, at the expense of utilizing very important moments of this subcommittee's time, may I bring to the attention of the chairman and also to the members, a great loss to the Navy. The day before yesterday the Navy's senior civilian contracting official, Mr. John Flaherty, passed away.

I bring this to the attention of the committee because senior people such as Mr. Flaherty are the cornerstone upon which our system is built. The loss of Mr. Flaherty will be sorely felt. He was my deputy for the past 4 years.

Excuse me for bringing this to you, but I thought it should be said.

It is a pleasure to appear before your task force today to discuss the subject of career paths for procurement managers in the Navy.

I have submitted the complete text of my statement and will present this afternoon an executive summary of that text. Specific examples and more detailed numbers are outlined in that statement.

The Naval Material Command is responsible for buying nearly all of the Navy's requirements, and last fiscal year we purchased over $40 billion worth of supplies and services, using some three million contracting actions.

In my position as Deputy Chief of Naval Material for Contracts and Business Management, I must ensure that our procurement policies and procedures are implemented in the most efficient and cost-effective way. Additionally, my office reviews and approves major weapon systems contracts.

The size and complexity of all of this, the policy side as well as the operating side, speak to the urgent need for professionalism, and highlight the requirement for proper preparation and training of the personnel who staff and manage the Navy's procurement system.

The procurement process in the Navy involves literally thousands of personnel, both military and civilian. Because of this civilian/military mix, I will address each of the training programs separately.

First, the military. The Supply Corps, whose insignia I wear on my uniform, provides virtually all of the Navy's military contracting specialists, through several programs.

The Navy Acquisition Contracting [NACO] Program trains junior officers in all aspects of Navy contracting. A combination of formal training and supervised on-the-job experience is used in this 2-year training program.

Upon completion of the program, a senior Naval Supply Corps officer certifies the completion of training and the qualifications as a contracting officer. Subsequent to his training tour, a graduate can expect at least two or three more tours in contracting to hone his skills and be a production manager.

The Business/Financial Manager [B/FM] Program, begun in 1974, created a deputy/assistant program manager position for all major programs. The B/FM serves as the primary adviser to the program manager on all business and finance related aspects of the program.

Supply Corps officers entering this program have MBA's in acquisition or financial management and prior experience in either or both of these disciplines. Indeed, many are graduates of the NACO Program I just mentioned. The B/FM often goes on to more senior responsibilities in Navy procurement and business and financial management.

We also have a trainee program to develop additional business and financial managers.

The Business/Financial Manager Trainee [B/FMT] Program was established to ensure a continuing flow of qualified officers for future B/FM requirements. It is similar to the NACO Program in that it combines formal training with supervised on-the-job experience to comprise the 2-year program.

I play an active role in the oversight and management of these three programs to ensure we are preparing the best qualified officers for these critical functions.

These three Navy contracting and acquisition training programs, the Navy Acquisition Contracting Officer Program, the Business/Financial Manager Program, and the Business/Financial Manager

Trainee Program, are a significant part of a broader Navy acqusition career program called the Weapon System Acquisition Management [WSAM] Program.

The WSAM Program draws from the unrestricted and restricted line communities as well as from the Supply Corps. It assigns junior officers to training billets early in their careers and then directs their subsequent shore assignments to acquisition-related jobs.

Formal training, again, is the norm for these officers, the best of whom are ultimately selected as major program managers. The major program managers are selected through a formal board process.

I will now address the civilian side of our procurement business, the backbone of the Navy's procurement process, where the bulk of our procurement expertise must be.

Nearly 12 years ago the Navy established the Navy Civilian Procurement Intern Program to recruit, develop, train, and retain a cadre of professional procurement personnel to manage our existing and future procurement functions.

Bringing personnel into the program through (1) on-campus recruiting, (2) merit promotion, and (3) upward mobility, this 2- to 3-year program mandates its members to complete the same professional education and training required of military personnel in their training programs.

The mix of mandatory formal training and supervised on-the-job experience is used to prepare civilian personnel for greater responsibility as they progress along their career paths. The program's 180 training billets are spread throughout the Navy, and graduates of this intern program over the years now permeate the Federal Government in procurement positions.

As with the military training programs, I actively participate in the oversight and management of this civilian intern program to ensure the right people are being properly trained.

In a related initiative, I was assigned chairmanship of Task Group Six on Career Programs, a directed element of the 1982 Executive Order 12352. Our group has created 10 career development and career management modules, and I have proposed the establishment of a Navy Career Management Board to be comprised of representatives from major Navy and Marine Corps procurement activities, to improve our recruiting, training, development and retention efforts and to ensure the development and maintenance of a Navy career management system.

Further, I have been assigned the role of Executive Adviser to the Defense Contracting/Acquisition Career Management Board and have the unique opportunity to implement the 10 modules developed by Task Group Six.

In short, the career progression of our procurement professionals is too critical to leave to happenstance. We feel we have been innovative and quick to take the initiative in these matters. Although never totally satisfied with where we are, we do feel we know were we are going and are making good progress toward that end.

Thank you, Mr. Chairman.

I now will be pleased to answer any questions you may have.

[The prepared statement of Admiral Sansone follows:]

Prepared Statement of Rear Adm. Joseph S. Sansone, Jr., U.S. Navy, Deputy Chief of Naval Material (Contracts and Business Management)

Good afternoon. I am Rear Admiral Joseph Sansone, Deputy Chief of Naval Material for Contracts and Business Management. It is a pleasure to appear at this Senate hearing to discuss how the Navy develops, trains, and assigns its procurement managers.

The Naval Material Command, where I serve as the senior contracting official, employs about 240,000 employees and is responsible for the buying of nearly all of the Navy's requirements. Last year, the Navy awarded 3 million contract actions, spending over 40 billion dollars. It is my responsibility not only to ensure that the policies and procedures governing the procurement process are implemented in the Navy in the most efficient and cost effective way possible but also to provide a review and approval for major weapon systems contracts, a "check and balance" function, if you will. An element most vital to the procurement process is the preparation and training of the personnel that man and manage the Navy's procurement systems. As you will see, I have been very involved with programs designed to enhance the quality of our procurement personnel.

The Chief of Naval Material, ADM Steve White, for whom I work, manages a very broad spectrum of acquisition and logistics efforts. The major ones range from Research and Development Programs, including nine Navy Laboratories plus the test centers and ranges, to the acquisition, delivery and life cycle support of naval systems and hardware. In addition, these responsibilities include such widely diverse areas as: industrial activities (shipyards, weapons stations and air rework facilities, to name a few); inventory management and warehousing of 500,000 items; construction, maintenance and repair of real property; and operation of the Navy Exchange and Commissary System. When salaries and operating expenses are added to the amount spent under Navy contracts, the Naval Material Command's responsibility totals almost 60 billion dollars of the Navy's annual appropriations.

May I now discuss the career paths, military and civilian, in the Navy procurement process? Of the 240,000 employees in the Naval Material Command, some 170,000 are involved with logistics at the various shipyards and supply centers; another 43,000 are in our labs and test and evaluation centers. We have 3,195 civilian procurement specialists; another 1,303 civilian procurement personnel are involved in small purchase processes; another 1,348 civilians are involved in procurement assistance roles; another 901 military officers are involved in acquisition and program management; and another 46 personnel serve as major program managers, three of whom are civilians. Both military and civilian personnel are involved in these areas, and because of this mix, I will be discussing our career paths for both.

The Supply Corps, which provides virtually all of the Navy's military contracting specialists, has a career program to develop officers' contracting skills called the Navy Acquisition Contracting Officer (NACO) Program. Sixteen junior officers graduate from this program each year and are assigned to activities which are involved in all aspects of Navy contracting from spare parts buying to the acquisition of R&D and major weapons systems. Control of the 33 training billets and oversight of this program are maintained by my office at the Naval Material Command Headquarters. Competition for entry into the program is keen, with only one of eight applicants being selected. Training is provided through a combination of formal classroom courses and on-the-job practical experience. The four week Management of Defense Acquisition Contracts (Basic) Course at the U.S. Army Logistics Management Center (ALMC) at Fort Lee is a mandatory requirement for matriculation in the program. A special one month Business Resources Management Course (BRMC) is conducted annually at the Colgate Darden Graduate School of Business at the University of Virginia. Relevant courses are mandatory and are utilized at the Air Force Institute of Technology (AFIT) and from the Defense Management Education and Training (DMET) system. Once the NACO program has sucessfully been completed, an officer can expect two or three more tours in contracting and to attend a graduate degree program early in his career. We currently have 135 graduates of this program on active duty.

In the early 1970's, the Navy recognized that the program management organizations needed a focal point for all business and financial matters. In 1974, the Chief of Naval Material established the Business/Financial Manager (B/FM) program which created a deputy/assistant program manager position for all major programs. The B/FM serves as the primary advisor to the program manager and, with the program manager, is responsible for acquisition strategy development; cost estimating and budget formulation and justification; financial system development, control and reporting; contract planning and coordination of requirements with the contracting officer; and contractor financial analysis and review of contractor performance and progress.

I play an active role in the oversight and management of this program to ensure that we are preparing and assigning the best qualified officers to this critical function. Supply Corps Officers possessing strong backgrounds and education in business administration, finance and contracting are assigned to these positions. These officers have MBA's in acquisition or financial management and experience in either financial management or contracting. (Often they have had previous tours in both areas.) Many are graduates of the NACO program that I mentioned earlier. We currently have 29 Supply Corps LCDRs and CDRs assigned to B/FM positions, the balance being filled by civilians.

Subsequent to the establishment of the B/FM positions, a Business/Financial Management Training (B/FMT) Program was established to ensure a continuing flow of qualified officers for future requirements. The B/FMT program is similar to the NACO program in that it is controlled by my office in the Naval Material Command and combines formal training with on-the-job experience. We have eight training billets established in various program offices within the System Commands. Candidates are carefully selected and progress is monitored to ensure that all required training is accomplished over the two year tour. Formal training courses required include various business and technical management courses at the Defense Systems Management College (DSMC) at Fort Belvoir. Courses at the Navy Acquisition/Logistics Management Center (NA/LMC) at Anacostia plus the BRMC and many of the AFIT and DMET courses from the NACO program are used. There are more than 20 weeks of required courses and an additional 20 weeks of optional courses. Like the NACO, B/FMTs can expect a subsequent assignment to a Masters Degree program in either contracting or financial management and follow-on tours as a BFM and in either contract or financial management positions.

B/FMs and NACO graduates are a signifiant part of a broader Navy acquisition career program called the Weapons System Acquisition Management (WSAM) Program. This program is our vehicle to grow senior military acquisition personnel, including program managers. An officer enters the program by assignment to one of more than 900 WSAM training billets, usually at the LT or LCDR level. If he performs well he will be designated as a WSAM specilist by a formal selection board made up of senior proven WSAM specialists. Once an officer has a WSAM designation, his shore tours are essentially limited to acquisition. In fact, a flag level waiver is required to assign a WSAM officer to a non-acquisition job. As an officer progresses in his career and is assigned to other WSAM jobs, he is eligible to be selected for higher level WSAM designations. Every officer with a WSAM designation has his record reviewed annually by the WSAM selection board and he must continue to be a top performer to maintain his WSAM designation.

WSAM designated officers are drawn from the Unrestricted Line, the Restricted Line (technical specialists) and Staff Corps (business specialists). The Unrestricted Line Officers rotate between operational sea tours and acquisition billets. Restricted Line and Supply Corps WSAM specilists spend most of their careers in the acquisition business. All WSAM designated officers receive operational tours in the fleet in addition to their acquisition tours. It is important to maintain a sensitivity to the fleet operational environment to complement knowledge of the constraints and support requirements in our program officers. This fleet operational sensitivity has proven invaluable in developing new systems and equipment.

WSAM designated officers have formal training in the acquisition business. Graduate level degrees are available at the Navy Postgraduate School in Monterey, CA. We are currently adding an additional graduate course at Monterey entitled "Weapon System Acquisition" which will be five to six quarters in length. We also utilize the Logistics Management course at the Air Force Institute of Technology and the Advance Educations Program at civilian institutions to gain graduate level degrees for these officers. Additionally, many officers attend the six month Program Management course at the Defense Systems Management College at Ft. Belvoir. Service colleges such as the Industrial College of the Armed Forces are also training in systems acquisition.

At the Captain (0-6) level WSAM designated officer records are reviewed by a board of Flag Officers and top performers—the best of the best—are selected as program managers. These officers are assigned to our major programs. In order to provide the stability required in these jobs, the tour length is four years. Currently, we have 43 major programs headed by Naval Officers, all of whom are WSAM specialists.

The bulk of Navy procurement is done by its civilian workforce which is comprised of some 3,195 procurement specialists. These negotiators, analysts and contracting officers are the backbone of the Navy's contracting process. Additionally, there are some 3,000 others in areas such as cost and pricing and property administration. Recognizing the need for a program to ensure an availability of professional personnel to man the procurement function, the Navy in 1973 established the Navy Civilian Contracting Intern Program, its objective being to recruit, develop, train and retain a cadre of professional contracting personnel to manage the Navy's existing and future contracting functions.

In the years following, however, the problem of an aging procurement workforce throughout the federal government was clearly identified and documented by studies conducted by Congress and the General Accounting Office as well as the President's Blue Ribbon Panel and the Commission on Government Procurement. Most recently an analysis of the federal procurement workforce indicated that:

(1) Two contracting specialists out of every five now employed have less than four years experience;

(2) By 1993, most contract specialists now employed will have left GS-1102 series; and

(3) The majority of 1993's contract specialists have not yet been hired. These findings lent greater credence to the need for the training program Navy had already established. Further, they clearly indicated that our recruiting and training efforts underway now will in large part determine the shape and makeup of our procurement workforce in the coming decades. I'll speak more about this later. Let me first describe our intern program and the opportunities it offers.

There are three different recruiting vehicles permitted by the Office of Personnel Management through which Navy contracting interns may be selected and brought into the intern program, namely; (1) on campus recruiting; (2) Merit Promotion; and (3) Upward Mobility. Beginning in 1977, the program has graduated approximately 60 people per year, and graduates are now spread throughout the federal government in contracting positions. There are 180 training billets spread over some 55 Navy activities, and the average intern, typically entering at the GS-5/7 level with target contract journeymen grades of GS-9 through GS-12, completes the program in two to three years. I play a key oversight role in the management of the intern program from my position at the Headquarters Naval Material Command. Its centralized funding, billet and allocation control provide greater enhancement of education, training, on-the-job experience and rotational assignments for our future procurement managers. A profile of the interns is provided at the end of this statement.

In the area of education, Navy civilian procurement personnel are required to complete the same education and training that is mandatory for military procurement personnel. Since both military and civilian personnel occupy key procurement management positions throughout the Navy, we believe that it is imperative to mandate that both communities, civilian and military, complete the requisite educational experiences.

Now let me speak to other initiatives underway to establish and implement a more effective career management program. Executive Order 12352 was signed in March 1982, and I was assigned the Chairmanship of Task Group Six on Career Programs. To implement the modules generated by the Task Group, the Navy is in the process of implementing the Navy Career Management Board. It is proposed that I will chair the board and that it will be comprised of representatives of major Navy and Marine Corps procurement activities. Its goal will be to further improve recruitment, training, development and retention of highly qualified professional procurement personnel and, specifically, to ensure the development and maintenance of a Navy Career Management System.

Further, tapping the experience the Navy has had over the past ten years in this arena, I have been assigned the role of Executive Advisor to the Defense Contracting/Acquisition Career Management Board to implement 10 porgram modules that I developed in Task Group Six, namely:

a. Career Management Systems.
b. Procurement Intern Programs.
c. Contracting Officer Qualifications and Warrants.
d. Career Development and Training Programs.
e. Performance Appraisal and Awards.
f. Recruitment and Selection.
g. Procurement Education.
h. Classification and Position Management.
i. Procurement Research.
j. Small Purchase Career Management Programs.

The Navy is continuing its long-standing interest in its procurement workforce and its ability to conduct the business of the Navy. We know where we're going and are making good progress.

NAVY CIVILIAN CONTRACTING INTERN PROGRAM

Intern profile: Average age, 27 years old. Education: BS/BA; 5 percent have master's degrees; 15 percent working on graduate degrees; and 40 percent minorities and women. Retention rate, 90 percent (Navy average for all occupational series, 82 percent).

Senator QUAYLE. Thank you.
General Stallings?

STATEMENT OF MAJ. GEN. DAVID W. STALLINGS, U.S. ARMY, DEPUTY CHIEF OF STAFF FOR PROCUREMENT AND PRODUCTION, ARMY MATERIEL COMMAND

General STALLINGS. Mr. Chairman, members of the Senate Armed Services Committee Task Force on Selected Defense Procurement matters, I am Maj. Gen. David W. Stallings, Deputy Chief of Staff for Procurement and Production, Headquarters, Army Materiel Command.

To set the stage for my discussion of career development of our military and civilian workforce in the acquisition and logistics career fields, I would like to give you a brief overview of the Command's mission, organization, and magnitude of operations.

We exist to support the soldier and the total Army including our active forces, the Army National Guard, and Army Reserve. We also support sister services and through the security assistance program, the allies of the United States.

We do the research, development, and acquisition of the Army's materiel, and maintain the continuous readiness of that materiel once it is in the hands of our soldiers.

The Command's authorized strength is over 124,000 and is composed of 91 percent civilian—113,387—and 9 percent military—10,654. The civilian mix is 69 percent white collar and 31 percent blue collar.

The Command's fiscal year 1985 budget amounts to about $27.1 billion, with the budget share ($18.8 billion) earmarked for procurement of weapons systems equipment, and major assemblies.

The diverse business of AMC requires the skill of many specialists. There are many career fields, both military and civilian, all of which contribute greatly to the acquisition process. However, I will limit my remarks today to those specialties and career development programs that you were most interested in.

I will begin with the research, development, and acquisition [RDA] management. This technical specialty is available to all commissioned officers who possess academic degrees related to engineering, physical science, or business. Officers are designated at the grade of captain, and there are currently 2,532 commissioned officers holding this specialty.

Formal training supporting the RDA specialty includes advanced civil schooling and pertinent training in our military schools. The RDA specialty is one of the fundamental building blocks leading to competitively selected and trained officers for key acquisition management assignments.

As Army proponent for the military procurement and production specialty, the commander AMC is responsible for establishment, development, management and evaluation of procurement officer career professional development. There are currently 500 validated Army procurement officer positions with 1,200 procurement officers available to fill them.

The career path for military procurement officers exposes them to procurement in about his eighth year of service. By this time he has learned basic leadership, management skills, understands the Army's user perspective, and has some commodity experience.

From that time forward, under the current dual track career system, the officers alternate between procurement and nonprocurement assignments approximately every 3 years. We have some 56 command positions, lieutenant colonel and colonel, that are currently designated to be filled by the best qualified procurement officers.

This is a significant increase since we started looking at the program very strongly in 1981.

Additionally, there are now several general officer positions which have been designated as procurement positions. The Brigadier General Promotion Board recently selected three senior procurement colonels for promotion to these positions.

These program enhancements are expected to attract many high quality junior officers to the procurement career field.

In recognition of the Army's need for top level materiel acquisition and logistic managers, a new program was initiated in 1983 to develop officers in defense materiel acquisition management. We call this the MAM Program.

MAM pulls together, for the first time, all of the functions and specialties involved in materiel acquisition into one program. It develops commissioned officers with broad multi-disciplinary levels of expertise specifically related to the total acquisition process.

Through fiscal year 1984, 240 captains and majors have successfully completed the MAM entry level course. Officers must complete two MAM assignments by the 15th year of service and the best qualified officers are then certified as materiel acquisition managers by an MAM Certification Board, coincident with their promotion to lieutenant colonel.

Officers certified as materiel acquisition managers are groomed for acquisition management assignments at the general officer level. Thus, the certified management phase begins the 16th year of active commissioned service and lasts throughout the remainder of the officer's career.

Another step taken to enhance acquisition skills among our RDA, MAM, and procurement and production officers is our Training With Industry [TWI] Program.

This program provides training in industrial procedures and practices not available through military service schools or civilian educational institutions, and provides officers with vital knowledge, experience and perspective in management and operational techniques of a specified industry, with special emphasis on procurement management. Because of increased industrial training needs, we have increased our annual officer participation to 30 P&P officers and 10 R&D officers. Beginning in 1983 and continuing through the 1988 training years we will be bringing these officers onboard. Commensurately, the number of participating companies has been increased by 60 percent.

The Army's civilian procurement career program differs from the military in that it is part of a DOD-wide program for contracting and acquisition personnel. The Army civilian career procurement workforce numbers about 6,000. Of this number, about 4,200 are assigned to AMC.

In addition to career personnel, there are about 3,000 people in the purchasing agent/procurement clerk series. Of this number, about 1,400 are assigned to AMC. Over 4,200 Army procurement personnel attended formal courses of instruction in fiscal year 1984.

This formal training coupled with practical on-the-job experience, our intern program, and other career development initiatives, provides for continuing development of our civilian procurement career workforce.

Of approximately 20,000 engineers and scientists—nonconstruction—Army civilian careerists, about 13,700 are assigned to the Army Materiel Command. These employees support the research, development, and acquisition process in such disciplines as engineering, physical science, mathematics, and biological and social sciences.

Like procurement, the engineer and scientist career field has an excellent intern training program which produces about 140 personnel annually to assist in filling our engineering positions.

As you are well aware, there is much competition with industry in attracting these technical skills in the Army. Also, we are having difficulty in retaining them, but our retention level is improving.

Our civilian counterpart to the military MAM Program was initiated in 1983 to further improve logistics and acquisition management throughout the Army. This Logistics and Materiel Acquisition Management Program, known as LOGAMP, evolved from a merger of the Army's Logistics Capstone Program, designed to develop and train civilians in two or more logistics functions and AMC's Civilian Materiel Acquisition Management Program that was developed for acquisition and logistic managers.

LOGAMP provides for the competitive selection of high potential logistics and acquisition employees in general merit and general GS schedule grades 13 to 15. The initial input of 192 employees was competitively selected for the LOGAMP Program to ultimately fill over 200 positions designated within AMC as key managerial logistics aquisition positions at the GS-14, GS-15 and SES levels. Although this program is in its infancy, LOGAMP is already considered a model cover program for developing civilian logistics, acquisition and procurement managers.

A pinnacle of military RDA, procurement, logistics, and MAM Specialty Programs and the civilian counterpart LOGAMP Program is assignment to program or project management offices where there are a total of 941 military positions and 4,103 civilian positions.

In the Army, all 72 of our program managers are military. We have considered assigning civilians as project managers, but have concluded that it is preferable to fill these positions with military officers who possess the breadth of experience in military art to provide a better understanding of problems faced by the field Army.

Also, the program manager must be able to participate in meaningful, constructive dialog with military officers in the qualitative requirements area.

Thus, the combination of a military manager, supported by a competent project management staff—composed primarily of civilian advisers and assistants—is considered an ideal structure.

PM eligibility is limited to those colonels or promotable lieutenant colonels who have 4 more years remaining service, are members of the Materiel Acquisition Management Program; hold an R&D specialty; or who request consideration before the Board.

As to the Nunn amendment which requires PM statutory tours for 4 years, we are supportive since it reinforces AMC's goal of a 3- to 5-year tenure for PM's and also enhances continuity, accountability and better cost control.

The establishment and fill of top level civilian executive positions is accomplished through the senior executive service SES personnel system with which I am certain you are familiar.

Since the Army is authorized only 366 spaces against a requirement of 400, we perform continuous reviews to assure proper utilization of these people. AMC has been allocated 146 of the Army's 366 SES authorizations and over 80 percent of these spaces are directly involved in the development, procurement, and support of weapon systems.

AMC has seven SES-level procurement managers and they are a significant part of the team of procurement managers that oversee all facets of AMC's RDA and logistics mission.

In closing, I would summarize by saying that the Army and AMC have aggressive programs in place to ensure a continuing high level of both military and civilian managerial excellence throughout the entire spectrum of the acquisition process.

In keeping with the President's direction, as contained in Executive Order 12352, we are giving particular emphasis to improving the professionalism of our procurement workforce.

Further, we are not sitting on our hands waiting for someone to tell us what needs improvement. We are taking our own initiatives to ensure that we are prepared to meet the challenges of the ever changing acquisition environment and our commitment to provide our soldiers with high quality equipment when they need it.

Thank you.

[The prepared statement of General Stallings follows:]

Prepared Statement of Maj. Gen. David W. Stallings, U.S. Army

Mr. Chairman, members of the Senate Armed Services Committee Task Force on Selected Defense Procurement Matters. I am Maj. Gen. David W. Stallings, Deputy Chief of Staff for Procurement and Production, Headquarters, Army Material Command.

To set the stage for my discussion of career development of our military and civilian work force in the acquisition and logistics career fields, I would like to give you a brief overview of the command's mission, organization, and magnitude of operations.

We exist to support the soldier and the total Army including our Active Forces, the Army National Guard and Army Reserve. We also support sister services and through the Security Assistance Program, the allies of the United States. We do the research, development and acquisition of the Army's materiel; and maintain the continuous readiness of that materiel once it is in the hands of our soldiers.

The command's authorized strength is over 124,000 and is composed of 91-percent civilian (113,387) and 9-percent military (10,654). The civilian mix is 69-percent white collar and 31-percent blue collar. Our facilities include 65 installations and subinstallations and real estate of 4.4 million acres. Our organizations consist of a headquarters; 10 major subordinate commands; 18 depots and depot activities; 20 laboratories and laboratory centers; nine proving grounds and test centers; four arsenals; 28 ammunition plants; 49 worldwide logistics assistance offices; 72 program, project, and product managers; and another 30 miscellaneous activities. Our six commodity commands perform total life cycle management for materiel in their commodity areas. This includes research and development, procurement, fielding, and follow-on logistics support. This commodity structure enhances command and control of AMC's acquisition responsibilities.

The command's fiscal year 1985 budget amounts to about $27.1 billion, with the largest share ($18.8 billion) earmarked for procurement of weapon systems, equipment, and major assemblies. When our appropriated prior year funds of $6.2 billion and $2.4 billion in stock funds are added, our fiscal year 1985 total obligation authority amounts to over $35.7 billion.

The diverse business of AMC requires the skills of many specialists, in many career fields, both military and civilian. They cross the entire spectrum of disciplines from engineering, procurement, quality and reliability, supply, maintenance, and transportation to records management, accounting and public affairs, to mention but a few. Although most all of the disciplines contribute to the acquisition process, I will limit my discussion to those most directly involved. I'll discuss the military specialties of research, development, and acquisition; procurement; logistics, and a newly implemented military specialty called materiel acquisition management, or MAM. On the civilian side, I'll discuss the engineer and scientist and procurement career development programs and our civilian counterpart to MAM, the Logistics and Materiel Acquisition Management Program, or LOGAMP. Following that, I will address our training with industry program, our program or project management system where all the acquisition management and logistics skills must meld together; and finally a few words about our civilian Senior Executive Service (SES).

The research, development and acquisition (RDA) management speciality, is a technical specialty available to all commissioned officers who possess academic degrees related to engineering, physical science, or business. Officers are designated at the grade of captain and there are currently 2,532 commissioned officers holding this specialty. The RDA specialty encompasses the multi-disciplined functions of research, development and acquisition management of materiel. Typical RDA officer duties include: Management of materiel and non-materiel systems throughout the life cycle; research, development, test, and evaluation; procurement management; management of national missile ranges; and command of our R&D centers.

Formal training supporting the RDA specialty includes advanced civil schooling, and military schools such as the materiel acquisition management course, contract management, cost analysis for decision making, and the program management course. The RDA specialty is one of the fundamental building blocks leading to competitively selected, specialized training for officers displaying potential for key acquisition management assignments.

Responsibility to serve as Army proponent for the military procurement and production specialty was transferred from the Department of the Army to the Army Materiel Command in 1981. The Commander, AMC, is responsibile for the establishment, development, management, and evalution of officer career professional development. There are currently 500 validated procurement officer positions with 1200 Army procurement officers available to fill them.

The career path for military procurement officers is considered among the best in the Army. Normally, an officer first will be exposed to procurement in year 8 to year 10 of his career. By this time, he has learned his basic leadership and management skills, understands the Army's user perspective, and has some commodity experience. From that time forward, under the current officer personnel management system concept which allows dual tracked careers, the officer will alternate assignments and work in the procurement field for 3-year periods every other 3 years. At the grade of lieutenant colonel, there are currently 28 command positions which are available to the most qualified procurement officers. As a colonel, 28 additional commands are available to the most qualified procurement officers. This represents a significant increase since 1981. Additionally, there are now several general officer positions which have been designated as procurement positions. The recent brigadier general promotion board selected three senior procurement colonels to be promoted to general officer positions. The combination of the several command positions available and the opportunity to be promoted to general officer provide an excellent career path for procurement officers. As a result, we expect to attract many high quality junior officers into the procurement career field.

Although I may be a bit biased, I feel the military procurement career field offers the best training opportunities in the Army. Not only are excellent military school courses available, but also there are approximately 140 certified Army educational requirements board positions which result in about 15 officers attending graduate school on an annual basis. The resultant master's degrees are normally in contract and acquisition management. Also, we have expanded our Training With Industry (TWI) Program for procurement officers which I will discuss later.

A logistician Development Program exists for selected officers in the grades of major and above. This program is designed to provide each member officer with comprehensive knowledge in two or more logistics disciplines. Officers with a baccalaureate degree, graduate degree in logistic management, experience of at least 12 months in each of two or more logistics disciplines, experience as a logistics staff officer at high staff levels, and demonstrated executive/managerial ability are given priority for assignment to the logistics program. Members of this program are targeted for assignment within the Army where a general knowledge of logistics is required.

In recognition of the fact that today's technology, system complexity and rising labor and production costs, make it vital to have personnel carefully trained and developed as top level materiel acqusition and logistic managers, a new program was initiated to develop officers in defense materiel acquisition management (MAM). MAM pulls together, for the first time, all of the functions and specialties involved in materiel acquisition into one program. It develops commissioned officers with a broad multidisciplinary level of expertise specifically related to the total acquisition process.

Only applicants with the right academic credentials are accepted, and they enter at approximately the sixth year of service. Selected officers are assigned acquisition management responsibilities at the grades of captain and major, after attendance at an entry-level MAM course at the Army Logistics Management Center. Through fiscal year 1984, 240 officers had successfully completed the entry-level course. Officers must complete to MAM assignments by their 15th year of service. The best qualified officers are then certified as materiel acquisition managers by the MAM certification board coincidental with promotion to lieutenant colonel. Officers certified as materiel acquistion managers are groomed for acquisition management assignments, with target assignments at the general officer level. Thus, the certified manager phase begins the 16th year of active commissioned service and lasts throughout the remainder of an officer's career.

Another step taken to enhance acquistion skills among our RDA, MAM, and procurement and production officers is our Training With Industry (TWI) Program. This program provides training in industrial procedures and practices not available through military service schools or civilian educational institutions, and provides officers with vital knowledge, experience and perspective in management and operational techniques of a specified industry, with special emphasis on procurement management.

A recent analysis of TWI needs resulted in the identification of 150 production and procurement positions and 55 research and development positions within AMC and the Defense Logistics Agency. Based on these identified requirements, AMC has increased its annual TWI officer participation to 30 P&P officers and 10 R&D officers, beginning in 1983 and continuing through the 1988 training years. In order to accommodate the program's expansion, the number of participating companies was increased by over 60 percent, adding to an already impressive list of dynamic companies which not only have an outstanding capacity to train, but have programs which positively influence Army materiel acquisition and readiness.

The Army's civilian procurement career program differs from the military in that it is part of a DOD-wide program for contracting and acquisition personnel. The Army civilian career procurement work force numbers about 6,000. Of this number, about 4,200 are assigned to AMC. In addition to career personnel, there are about 3,000 people in the purchasing agent/procurement clerk series. Of this number, about 1,400 are assigned to AMC. Over 4,200 Army procurement personnel attended formal courses of instruction in fiscal year 1984. This formal training, coupled with practical on-the-job experience provides for continuing development of our civilian procurement career work force.

Major initiatives to improve the management of procurement careerists have been undertaken. Some actions include: Publication of new position classification standards; increased emphasis on management of our intern program; expanded training capabilities through such methods as university course equivalency and the use of on-site and other alternative instruction modes (e.g., tele-teach); reestablishment of a senior level procurement career management board; and development of a 5-year plan to institutionalize further improvements to the program.

Of approximately 20,000 engineer and scientist (non-construction) Army careerists, about 13,700 are assigned to AMC. These employees support the research, development and acquisition process in such disciplines as engineering, physical sciences, mathematics, and biological and social sciences. AMC manages two types of intern programs for training and developing our engineer and scientist careerists. The first is the intern training program at Red River Army Depot which graduates about 90 interns annually. This program has recently been approved for expansion from 1 year to 18 months, and covers the engineering disciplines of maintenance, quality, and product/production. The second is our RDTE intern program at each of AMC's laboratories. About 270 spaces are devoted to this program for development and training of individuals through on-the-job experience, supplemented by formal training courses. Both programs are working well, and together, contribute substantially to the fill of AMC's scientist an engineering positions.

A civilian counterpart to the military MAM program evolved in 1983 to improve logistics, acquisition and procurement management throughout the army. This program evolved from a merger of the army's Logistics Capstone Program, designed to train and develop civilians in two or more logistic functions, and AMC's Civilian Materiel acquisition Management Program that was developed for acquisition and logistic managers in the AMC coummunity. LOGAMP provides for the competitive selection of high-potential logistics and acquisition employees in general merit and general schedule grades (GM/GS) 13 to 15. Through a blending of formal training and job assignment, successful participants can become qualified for positions at the Senior Executive Service (SES) level where the logistics and acquisition tracks are merged. personnel are prepared to enter the competitive development phase of LOGAMP through enhanced interfunctional training and development assignments within the traditional logistics and acquisition-related programs, beginning at the intern level. Currently, 192 employees have been competitively selected for the LOGAMP program. Additionally, over 200 positions have been identified and designated within AMC as key logistics and acquisition positions at the GS–14, 15 and SES levels for LOGAMP managers. Although still in its infancy, LOGAMP is alerady considered a model career program for developing civilian logistics, acquisition and procurement managers.

The pinnacle of military RDA, procurement, logistics, and MAM specialty programs and the civilian counterpart LOGAMP program is assignment to program or project management offices where there are a total of 941 military positions and 4,103 civilian positions. In the Army, all 72 of our PM's are military. We've considered assigning civilians as project managers, but have concluded that it's preferable to fill these positions with military officers who possess the breadth of experience in military art, to provide a better understanding of problems faced by the Field Army. Also, the PM must be able to participate in meaningful, constructive dialogue with military officers in the qualitative requirements area. Thus, the combination of a military manager, supported by a competent project management staff (composed primarily of civilian advisors and assistants) is considered an ideal structure. It assures effective dialogue between the users who develop military requirements and the industries that design and produce the hardware. Colonel level PM's are centrally selected by a HQDA general officer selection board. Important selection criteria include broad based, acquisition, procurement and/or logistics experience; demonstrated leadership and managerial skills; and related baccaulaureate/advanced degrees in the disciplines of engineering, physical science, or busisness. Further, eligibility is limited to those colonels or promotable lieutenant colonels who have 4 or more years remaining service; are members of the materiel Acquisition Management (MAM) Program; hold the reseearach and development specialty; or who request consideration before the board.

Now, let's turn our attention to the Nunn amendment as pertains to program managers. The Nunn amendment sets a statutory tour of 4 years or completion of a major program milestone for managers of major systems. The amendment permits service Secretaries to waive those tour lengths in unusual or unforeseen circumstances. The amendment reinforces AMC's goal of a 3- to 5-year tenure for PM's and also enhances continuity, accountability and cost control.

The establishment and fill of top-level civilian executive positions is accomplished through the senior Executive Service, or SES, personnel system. Establishment of SES positions depend on the scope of management responsibilities, relative importance of programs managed, and availability of authorizations from the office of personnel management to support them. The fact that Army has only 366 authorizations to apply against over 400 requirements, forces regular reviews of how well these authorizations are being utilized. To give you a feel for just how important supporting procurement programs is to the Army, AMC has approximately 40 percent of the Army's 366 SES authorizations. As to the distribution of AMC's 146 approved positions by duty function, over 80 percent are directly involved in the development, acquisition, support, and procurement of weapon systems. Although within AMC there are only seven SES-level procurement managers, they are a significant part of the larger civilian/military team of procurement managers that oversee every facet of AMC's RDA and logistics mission.

In closing, I would summarize by saying that the Army and AMC have aggressive programs in place to ensure a continuing high level of both military and civilian managerial excellence throughout the entire spectrum of the acquisition process. In keeping with the President's direction, as contained in Executive Order 12352, we are giving particular emphasis to improving the professionalism of our procurement work force. Further, we are not sitting on our hands waiting for someone to tell us what needs improvement. We are taking our own initiatives to ensure that we are prepared to meet the challenges of the ever-changing acquisition environment and our commitment to provide our soldiers with high quality equipment when they need it.

Senator QUAYLE. Thank you, General.

General Steere?

STATEMENT OF MAJ. GEN. RICHARD E. STEERE, U.S. AIR FORCE, DCS/SYSTEMS, HEADQUARTERS, AIR FORCE SYSTEMS COMMAND

General STEERE. Mr. Chairman, with your permission, I propose to briefly summarize my statement and submit the full text for the record.

I appreciate the opportunity to meet with you and to summarize the Air Force career development programs for military and civilians in the program management, contracting, and logistics fields.

These acquisition specialties form the basis of a management team, headed by a program manager, given the responsibility to successfully acquire a weapon system. The progression in these specialties is divided into five phases:

No. 1. Initial, zero through 3 years.

No. 2. Intermediate development, 4 through 10 years.

No. 3. Advanced development, 11 through 16 years.

No. 4. Staff, 17 through 21 years.

No. 5. Executive leader, plus 22 years.

These are summarized in the statement from which I am extracting this brief summary and they reflect those career progressions that are outlined in Air Force regulations.

The Air Force has a well-established and functioning career management program for its acquisition managers, providing a variety of challenging assignments in program management, contracting, and acquisition.

Under guidance of the program manager, these career professionals together with systems engineers, cost analysts, schedule and budget planners, and many other disciplines required for successful acquisition program, team together with our System Program Management Office to acquire the most technically superior cost-effective weapons available.

Thank you.

[The prepared statement of General Steere follows:]

Prepared Statement of Maj. Gen. (SEL) Richard E. Steere, DCS/Systems, Headquarters, Air Force Systems Command

Mr. Chairman and Members, thank you for the opportunity to meet with you and summarize the Air Force career development programs for military and civilians in the program management, contracting and logistics fields. These acquisition specialties form the basis of a management team, headed by a Program Manager, given the responsibility to successfully acquire a weapon system. The progression in these specialities is divided into five phases: (1) Initial, zero through three years; (2) Intermediate Development, four through ten years; (3) Advanced Development, eleven through sixteen years; (4) Staff, seventeen through twenty-one years; and (5) Executive Leader, plus twenty-two years. I would like to briefly highlight each of these specialties and address any questions you may have.

PROGRAM MANAGERS

The Acquisition Project Officer is the normal entry point in this career field and allows the individual to progress through the Intermediate Development stage and into early Advance Development. Experience is gained in planning and developing subsystems both from academics at the Brooks AFB AFSC Acquisition School and by performing tasks within the systems acquisition field community.

The Acquisition Management Officer career speciality exposes the individual to staff level responsibilities usually performed at the MAJCOM or higher headquarters while affording overall program management opportunities in less than major systems. Normal career progress is through the Advanced Development and Staff phases. The pursuit of an advanced degree as well as specialized training through the Air Force Institute of Technology School of Acquisition Logistics and the Defense Systems Management College are routine academic accomplishments during these phases.

The premier level for both development and duty within the acquisition career field is the Program Manager. This is the Executive Leader phase. Commensurate with their development and experience, Program Managers are given the responsibility to direct and provide managing supervision for major systems acquisition programs. The Program Manager is the focus of all specialities brought to bear on the acquisition of weapon systems and is accountable for every policy and procedure employed to assure optimum attainment of program objectives.

Variations will and should occur in response to individual interests and experience and with the changing needs of the Air Force.

ACQUISITION CONTRACTING OFFICER

Officers entering the contracting career field are typically assigned in a trainee status to a base contracting office, Air Logistics Center, AFSC Product Division or AFPRO. Here they get indoctrinated into the basics of the contracting business through on-the-job training, attendance at the basic contracting course, and a succession of other professional specialty courses. This first assignment provides the foundation on which the remainder of the officer's career is built.

In the officer's second assignment and throughout his first ten years of service the officer will proceed through a succession of varied assignments designed to give him broad exposure to the career field and the Air Force. If the officer's first assignment is to an AFSC Product Division, for example, he will typically be reassigned to an AFPRO to gain exposure to the contract administration side of the business. If he starts in base level or central contracting at an Air Logistics Center he will often be brought into Systems Command to broaden his exposure. There is no set pattern here, we just want to give officers varied exposure in different facets of the acquisition business. Some officers will flow out of the career field during this period to gain exposure to operational aspects of the Air Force. Throughout this phase officers will continue to receive job related training, higher levels of professional military education and advance academic education.

During his next ten years of service officers will be placed in managerial and policy making positions in the contracting arena. This may include positions at the Pentagon, Major Command Headquarters, Division Chiefs at buying divisions and

Deputy Commanders of contract administration activities. Again, more training and more professional military education, all designed to enhance the officer's experience and prepare him for executive level positions.

Finally, the officer enters the executive leader phase bringing with him managerial expertise and a broad background in both the acquisition business and the Air Force. He has been developed over the previous twenty years to tackle our toughest jobs, as the Director of Contracting on a major system, for example. The career development process will ensure that he is ready for that job.

ACQUISITION LOGISTICS OFFICER

Officers entering the logistics field will generally be assigned to a squadron or wing at one of our many AF bases. Technical training is usually provided in this initial phase, i.e. maintenance officer will attend the basic maintenance course. On-the-job training will provide the logistics officers practical knowledge and experience. Career broadening education is provided through Air Force Institute of Technology (AFIT) short courses.

In the intermediate development phase, four to 10 years, officers who have displayed significant potential will be assigned duty as an Logistics Plans and Programs staff officer. One of the careers in this speciality is acquisition logistics. Career logistics officers who complete an AFIT graduate program will often be assigned to positions of greater responsibility at an Air Logistics Center or AFSC Product Division. Officers may also apply for the AFIT Education with Industry (EWI) Program which provides career logistics officers with the education and training necessary to benefit them in future dealing with industry, and to prepare them for top leadership positions in logistics. The training gives our officers an executive view of the problems of management, with emphasis on industrial operations, management of raw materials and finished products, production and assembly and other administrative disciplines.

In the advanced development and staff phases, 11–12 years, logistics officers in the field grade ranks are assigned to supervisory and management positions. He serves as the Program Office focal point for logistics throughout the acquisition life cycle. He assists the Program Manager by performing various managerial tasks associated with integrated logistics support activities. The Deputy program manager for logistics (DPML) develops, initiates, and manages all logistics actions associated with the life cycle of a weapon system. In this phase, the logistics officer may attend more advanced AFIT short courses in Logistics Management or Integrated Logistics Support.

Later in his career, logistics plans and programs officers will occupy key managerial and policy making positions at a higher level of command-Airstaff or major command.

In general the Air Force has well established career management programs for its procurement managers providing a variety of challenging assignments in program management, contracting and acquisition logistics. Under the guidance of the Program Manager, these career professionals, together with Systems Engineers, Cost Analysts, Schedulers, and Budget Planners and the myriad of disciplines required for a successful acquisition program, team together in our program officers to acquire the most technically superior, cost effective weapon systems available.

Senator QUAYLE. Thank you.

General Miley?

STATEMENT OF GEN. HENRY A. MILEY, JR., U.S. ARMY (RETIRED), PRESIDENT, AMERICAN DEFENSE PREPAREDNESS ASSOCIATION

General MILEY. Mr. Chairman, I will extract a few sentences from the short opening statement I prepared and offer a few sentences from a statement I published for the Army last summer.

Senator QUAYLE. I might remind everyone that General Miley was formerly the Commander of the Army Materiel Command and since retirement from the Army is President of the American Defense Preparedness Association.

General MILEY. During the past 30-odd years our military establishment has become almost completely dependent on this privately owned free enterprise, competitive defense industry base to design, develop, produce, and support the weapons systems and equipment employed by our Armed Forces.

Although our in-house Defense Department laboratories continue to explore military science and technology, the hardware items in the hands of our fighting forces are, with few exceptions, designed, developed, produced, and supported by the companies in our industrial base.

The resultant of this arrangement—almost total dependence on the privately owned defense industry base—is that the procurement activities of the services, and how well they are performed, are critical to the effective functioning of the defense-industry relationship and, indeed, to combat effectiveness of our fighting forces.

These procurement functions are enormously sophisticated and complicated. Utilizing a wide variety of contractual arrangements, the procurement organizations of the Defense Department must obtain from industry research and development services, production hardware, special tools and test equipment, repair parts, replacement components and subsystems, a wide spectrum of software, and technical data packages to support follow-on procurement either of the end items, components or repair parts.

The credo of the defense procurement personnel is to obtain the required goods and services in accordance with the pertinent specifications, including the specified quality, on time and at reasonable prices.

The military personnel who manage these enormously complex and high-risk procurement functions must be well educated, well trained and, most important of all, highly experienced.

Their civilian assistants and advisers must be truly experts in their specialties. It is no field for neophytes or amateurs. It requires total dedication and great perseverance because the environment, particularly at the present time, is replete with highly vocal Monday morning quarterbacks.

Let me extract one paragraph from a study we did for the Army on the subject.

First, the Army should expand its consideration and efforts from developing project managers per se to the development and maintenance of an acquisition management pool. This pool should consist of officers who by virtue of their education, training, and experience are experts in the areas of development, procurement, production, and logistics support of weapon systems.

These officers would apply for entry into the pool after about 7 to 10 years of service during which they should have acquired some hardware orientation, artillery, missiles, and be selected for their pool based on performance skills and Army need.

What I contemplated here is assignment to a DARCOM laboratory of project management officers, Army staff and advanced civilian education pool of industry assignments to logistics organizations and other Army commands.

The basic requirements for entering the pool should be a degree in engineering or scientific discipline. We consider that to be an absolute. This should be supplemented early on by an advanced degree either in engineering or business administration.

Project managers should be selected from this pool as required as well as the senior managers of the Army's acquisition business up to and including the DARCOM commander.

This procedure should establish a clear path of the possibilities for upward mobility in the materiel acquisition management field and provides an incentive attractive for officers to join the pool.

Let me make one more point.

Second, the acquisition management pool described above should be controlled absolutely by the commander of DARCOM, now AMC, in coordination with MILPERCEN. The DARCOM commander is the individual who is institutionally responsible for the weapon system acquisition function of the Army.

It follows, in our view, he should, be responsible for the selection, education, training and assignment of the individuals who manage the component elements of the Army's acquisition discipline. We found that the arrangement is generally followed by the Navy and Air Force.

I think that is enough, Mr. Chairman.

[The prepared statement of General Miley follows:]

PREPARED STATEMENT OF GEN. HENRY A. MILEY, JR., U.S. ARMY (RET.) PRESIDENT, A.D.P.A.

Mr. Chairman: The tremendous performance of American industry during World War II in supplying the vast quantities of materiel, equipment, munitions and supplies required by the U.S. forces and their allies combined with the industrial mobilization ordered by President Truman in December 1950 laid the foundations for an American defense industry complex which is second to none in the world.

During the past thirty-odd years, our military establishment has become almost completely dependent on this privately-owned free enterprise, competitive defense industry base to design, develop, produce and support the weapons systems and equipment employed by our Armed Forces. Although our in-house Defense Department laboratories continue to explore military science and technology, the hardware items in the hands of our fighting forces are with few exceptions, designed, developed, produced, and supported by the companies in our industrial base. In most cases, these companies, in addition to their defense business, are engaged in developing and producing items for sale in the civilian market. Under this arrangement, the Defense Department has been able to take advantage of the technology explosion which has taken place and continues to take place in our civilian scientific, technical and industrial establishment.

The weapons systems with which our forces are being equipped are the most capable in the world today. They incorporate features that are on the leading edge of technology. This is absolutely essential to continued existence as a free and democratic Nation because our Communist adversaries are in hot pursuit in the technology race. However, the maintenance of this technical edge involves a degree of technical risk.

The resultant of this arrangement—almost total dependence on the privately-owned defense industry base—is that the procurement activities of the services, and how well they are performed, are critical to the effective functioning of the defense-industry relationship and, indeed, to combat effectiveness of our fighting forces.

These procurement functions are enormously sophisticated and complicated. Utilizing a wide variety of contractual arrangements, the procurement organizations of the Defense Department must obtain from industry: Research and development services, production hardware, special tools and test equipment, repair parts, replacement components and sub systems, a wide spectrum of software, and technical data packages to support follow-on procurement either of the end items, components or repair parts.

The credo of the defense procurement personnel is to obtain the required goods and services in accordance with the pertinent specifications, including the specified quality, on time and at reasonable prices. The military personnel who manage these enormously complex and high-risk procurement functions must be well educated, well trained and, most important of all, highly experienced. Their civilian assistants and advisors must be truly experts in their specialties. It is no field for neophytes or amateurs. It requires total dedication and great perseverance because the environment, particularly at the present time, is replete with highly vocal Monday morning quarterbacks.

Most of my 35 years of service in the Army were connected with procurement. Since my retirement, I have been a close, and at times involved, observer of defense procurement. In my view the job has been and continues to be extremely well done, notwithstanding the media horror stories. The capability and readiness of our forces supports that conclusion. Like all forms of human endeavor, the military procurement function is susceptible to improvement and the services are assiduously working that problem—with considerable help and advice from a variety of sources including the Congress. I am hopeful that the saturation point has not been reached.

Mr. Chairman, that concludes my prepared statement. I thank you for the opportunity to appear today.

[Attachment.]

American Defense Preparedness Association,
Arlington, VA, July 11, 1984.

Hon. Jay R. Sculley,
Assistant Secretary of the Army (Research, Development and Acquisition), 2E-672 The Pentagon, Washington, DC.

Dear Jay: 1. I have completed the task you assigned to me, in your letter of 10 May, having to do with the selection, training and motivation of Army Project Managers. My investigative format consisted of the following:

a. I assembled a group of individuals who had either served or are serving in senior Army acquisition management positions, or had served as Project Managers. Some had performed in both capacities. The names of these individuals appear in Enclosure 1.

b. After a preliminary discussion session we met with representatives of the Army, Navy and Air Force who are concerned with the selection, training and assignment of Project Managers (SPOs).

c. I dispatched letters to senior corporate officials who have had considerable experience with Weapons Systems programs and their Project Managers. I solicited their views on this subject. A listing of the Industry people is on Enclosure 2.

d. I conducted a final wrap-up session with my study group today and the group's consensus is set forth in the following paragraphs.

2. We adopted, from the beginning, a single pervasive premise and two basic assumptions.

a. Our premise is that the functions of the Army's Project Manager are not those classically associated with the term "Manager". This stems from the fact that the Army does not develop or produce its weapons systems in-house. The management of these functions is contracted for, with, or through prime contractors. Hence, the principal functions of the Project Manager are contracting for and/or monitoring and evaluating the technical performance of the contractor(s). The term "technical performance" is used here in the broadest sense to comprehend not only the performance and quality of hardware but also the contractor's management of resources and sub-contractors.

b. Our basic assumptions were:

(1) First, that the Army is reasonably satisfied with OPMS with respect to Combat Arms Commanders; that the system effectively selects, educates, trains, motivates and rewards the Army's Combat Commanders; and that these Commanders (at all levels) perform their functions in accordance with the Army's expectations, i.e., they are and have been reasonably successful. The last battlefield test of these Combat Commanders was Vietnam (unless you count Grenada) and the Army appears to believe that the Commanders produced by OPMS will continue to be successful in any future battlefield test.

(2) Second, that the Army is not completely satisfied that the Project Managers, which OPMS (and its predecessor system) has produced over the last twenty or so years, have uniformly achieved the same level of success as its Combat Commander group. The Army's Project Managers have been on the "acquisition battlefield" continuously since 1962. Even though many weapons systems have been developed and deployed during that period, the Army's perception is that at least some of the programs were not as successful as they could have been. Further, there is a perception that the quality and performance of the Project Managers have been contributing factors. The accepted indicators of the less than reasonable success of the progams have been the highly publicized reports of system deficiencies, cost over-runs and delayed fielding.

c. We did not have the time or the data to validate these assumptions. Therefore, in developing our report, we accepted them as given.

3. In your letter of 10 May you asked for a review of the project management system with recommendations on things that could be done to improve its health and attractiveness. In relation to General Wickham's request, four (4) specific areas were to be considered in this review:

a. The system for selecting Project Managers.

b. The upward mobility possibilities for Project Managers (or Material Acquisition Managers).

c. The authorities of the environment in which the Project Managers (Material Acquisition Managers) must deal.

d. The constraints of the environment in which Project Managers (Material Acquisition Managers) must deal.

4. In regard to the selection and training of Project Managers and the upward mobility possibilities for Material Acquisition Managers, we arrived at two fundamental conclusions which I will address in some detail.

a. First, the Army should expand its consideration and efforts from developing Project Managers, per se, to the development and maintenance of an Acquisition Management pool. This pool should consist of officers who, by virtue of their education, training and experience, are "experts" in the areas of development, procurement, production and wholesale logistics support of weapons systems. These officers would apply for entry into the pool after about 7-10 years of service during which they should have acquired some hardware orientation (artillery, missiles, combat vehicles, ammunition systems, etc.) and be selected for the pool based on performance, skills, and Army needs. Their careers, after entering the pool, should be managed with a view to broadening and deepening their expertise in the several aspects of weapons systems acquisition. What is contemplated, here, are assignments to DARCOM Commodity Commands and Laboratories, Project Manager Offices, the Army Staff, advanced civilian education, tours with industry, and assignments to logistics organizations in other major Army Commands. A basic requirement for entering the pool should be a degree in an engineering or scientific discipline. This should be supplemented, early on, by an advanced degree in engineering or business administration. Project Managers should be selected from this pool, as required, as well as should the senior managers of the Army's acquisition business up to and including the DARCOM Commander. This procedure would establish a clear path of the possibilities for upward mobility in the material acquisition management field and provide the incentive and attractiveness for officers to join the pool.

b. Second, the acquisition management pool, described above, should be controlled (managed) by the Commander of DARCOM in coordination with MILPERCEN. The rationale, here, is that the DARCOM Commander is the individual who is institutionally responsible for the Weapons Systems acquisition functions of the Army. It follows, in our view, that he should be responsible for the selection, education, training and assignment of the individuals who manage the component elements of the Army's acquisition business. We concluded that MILPERCEN should continue to prepare and publish the assignment orders for members of the pool in accordance with advice from the C.G. DARCOM and assist by advising on overall Army personnel policies. The final selection of Project Managers should be a function of the C.G. DARCOM. We found that this arrangement is generally followed by the Navy and Air Force.

5. With regard to Project Manager authorities and the constraints of the environment in which Project Managers (Material Acquisition Managers) perform we arrived at two basic conclusions:

a. First, according to the charter of the Project Manager he is vested with total responsibility and authority for his project. In reality, he does not enjoy that authority and control. He cannot, unilaterally, make any substantive changes in schedule, cost, or performance characteristics of his system. Such decisions are made at levels above the Project Manager—DARCOM, ASARC, DSARC and even by the Congress. Technical design decisions are made by the contractor(s). Hence, the Army should recognize this real world situation and reorient its perception (and charter) of the Project Manager to recognize his actual role. His fundamental responsibility is to continuously observe and evaluate the technical performance of the contractor(s) and the Army agencies which provide service and support. This spectrum comprehends design, development, procurement, production, training, testing, and field support. The word technical is used here in its broadest sense to include not only the engineering aspects of his weapons systems but also the contractor's management of resources and sub-contractors. It should be crystal clear to all involved, and in the related documentation, that the Project Manager's function is that of the wise buyer rather than the advocate. In performing this function the Project Manager should fully engage the Army's expertise wherever it may be located.

b. Second. There are numerous constraints in the Project Manager's environment which significantly impact on his ability to prosecute a successful program. Some of these are: overly optimistic projections of schedule, cost and achievable performance. The suggestion that these constraints can be eliminated or compensated for by careful selection, education and training of Project Managers is simplistic and misleading. There must be a disciplined effort, throughout the Army structure concerned with weapons systems acquisition, to insure the establishment of and adherence to reasonable and attainable statements of requirements, program schedules and cost estimates.

6. Our investigations and deliberations arrived at some related information which we offer for consideration.

a. The senior industry people, with whom we consulted, generally agreed on the following:

That the education, training and experience of Project Managers have not been the key factors in program difficulties. They cited as more fundamental causes such things as: poor definition of requirements, changing requirements, poor cost estimating, inadequate up-front funding, and program instability.

b. The senior industry group generally favored a technical background for Project Managers as opposed to Combat Arms experience. In this connection they recommended that the Project Manager have on his staff, possibly as Deputy P.M., a combat arms officer, with an appropriate background, who could facilitate the "user" interface.

c. With respect to the appointment of civilian employees as Project Managers there was a general consensus—my group, Navy and Air Force representatives, and industry—that for main line weapons systems; aircraft, ships, submarines, artillery, tanks, etc., military Project Managers are preferred. However, there was also a consensus that secondary and/or support systems programs; such items as radars, avionics, computer based logistic support hardware, possibly even missiles, could be effectively managed by qualified civilians. The point here is that the military P.M. is more acceptable and comfortable in interfacing with the user structure.

7. We recognized, as we developed our conclusions, the considerable effort expended and the progress achieved by the Army, in recent years, under the banner of Proponency. We were aware that the C.G. DARCOM is the proponent for the procurement and R&D career fields. We knew that the Chief of Ordnance and the Quartermaster General are proponents for the maintenance and supply specialities. We would not propose to disturb any of that structure. We believe that each proponency area should be a feeder to the acquisition management pool which we have recommended.

Finally, we did not involve ourselves in the intricacies of OPMS specifically with the "dual tracking" concept. We chose instead to devote our attention to what we perceived to be the "weapons systems acquisition gap". This "gap" began to develop when the Technical Services were eliminated in 1962. We believe that our proposals would begin to close that gap—recognizing that it will take some time to solve the twenty-year old problem.

8. In summary, my group believes that substantial improvement in the Army's acquisition of its weapons system can be achieved if the following can be accomplished.

(1) Create and maintain a pool of acquisition experts: such a pool to be managed and directed by the C.G. DARCOM; and from which the Army's Project Managers and key acquisition commanders would be drawn.

(2) Reorient the Army's perception and the charters of its Project Manager to: (i) recognize his extremely limited authority, and (ii) precisely identify his function and responsibility to be that of the wise buyer rather than the advocate.

(3) Establish and pursue a disciplined effort throughout the Army to insure that weapons systems acquisition programs are initiated and prosecuted *only* on the basis of realistic performance requirements, scheduled and cost estimates.

9. We have expended considerable thought and effort on this paper. We hope that you will find it useful. We stand ready for further discussion or elaboration as you desire.

Regards,

HENRY A. MILEY, Jr.,
General, U.S. Army (Retired),
President.

[Enclosure 1]

LIST OF INDIVIDUALS WHO HAD SERVED, OR ARE SERVING IN SENIOR ARMY ACQUISITION MANAGEMENT POSITIONS, OR AS PROJECT MANAGERS

Lieut. General Donald M. Babers, U.S. Army, Director, Defense Logistics Agency.

Lieut. General W. W. Vaughan, U.S. Army (Ret.), 2904 Dartmouth Road, Alexandria, VA

Major General Frank A. Hinrichs, U.S. Army (Ret.), 11518 Catalpa Court, Reston, VA

Major General Frank Ragano, U.S. Army (Ret.), Chairman of the Board, BEI Defense Systems Co., Arlington, VA

Major General Patrick M. Roddy, U.S. Army (Ret.), Missiles Systems Division, Raytheon Company, Bedford, MA

Brig. General John M. Shea, U.S. Army (Ret.), XMCO, Inc., McLean, VA

[Enclosure 2]

SENIOR CORPORATE OFFICIALS

Joseph F. Caligiuri, Executive Vice President, Litton Industries

Dr. Malcolm R. Currie, Executive Vice President, Hughes Aircraft Company

Philip S. Devirian, Formerly Vice President of FMC Corporation

D. Brainerd Holmes, President, Raytheon Company

Robert L. Kirk, President and C.E.O., LTV Aerospace and Defense Company

Robert L. Johnson, Corporate Vice President—Group Executive, McDonnell Douglas Corporation

Thomas G. Pownall, Chairman of the Board, Martin Marietta Corporation

Donald J. Yockey, President, Defense Electronics Operations, Rockwell International Corporation

Senator QUAYLE. Thank you very much, General Miley.

Let me start this questioning by picking up where I left off in my opening statement.

Procurement is going to be much more of an issue than it has been before. The last couple of years certainly have brought out some of the problems we have, but also as you look at the allocation of resources, it is not going to be what we expected or what we needed, so we have to be more efficient.

So, I am concerned and want to try to get some ideas on the way we can get our best people in the procurement process and the acquisition process of our military.

You have all given me a fairly good outline of what has happened, things are perhaps going well, but I think we can do better. I think we have to do better. I don't think it is a question of whether we will; we have to do better.

Now, as you look to getting the best people in the procurement system and into the acquisition system, to me there has to be a fairly good opportunity for a young officer to get up to the top and to see a career path orientation.

I think in the past, not necessarily now, in the past getting into the procurement area you had to do it and people, once they got in, wanted to get out and get back to the tanks, ships, or planes. That is what they really wanted to do.

What kind of incentives can we create within the acquisition system itself right now so that we can attract better people, the most qualified, the best educated, that are going to become not only program managers, but the people who are going to make that analysis, the people out there who are going to be checking that, and then you look at the sort of allocation at the top.

I am curious what would really be an incentive. I guess you should start with that young person just coming out of school, high school or college.

What would be an attraction to them if they are going to sign up for the Army, Navy, or Air Force? What would be an attraction for them to get into the acquisition career field and to stay in it?

What more can we do so that they can see this is really going to enhance their career in the military, a good opportunity, and something that they would certainly be proud of upon completion of service?

Admiral, do you want to speak about that and let us know what additional incentives we can provide for these people?

Admiral SANSONE. Yes, sir. Let me address some comments to the civilian work force for just a moment and then move to the military.

As part of the responsibilities I was assigned by OMB under Executive Order 12352 in developing career management and career development programs for the work force—there is a melding of 17 Federal agencies in the task group—we decided there was a need for an additional Executive Order to more properly legislate, if you will, the means of providing an input to the civilian work force.

What do I mean by that? There was a need to be able to go on campus for a portion of our input, to be able to compete with the Exxons and the major corporations that were on campus recruiting the graduating seniors.

Our intern program does not precisely permit us to do that.

So, we proposed another Executive Order which is currently before the Office of Personnel Management. This new Executive Order will allow us to go on campus and competitively hire graduating students into our program to fill about 20 percent of our input throughout the Federal Government.

Now, 20 percent of our input would be a significant increase in the number of college graduates input to the civilian work force compared to today, a significant increase.

The other percentages of our input will continue through merit promotion, cooperative education programs, and through upward mobility kinds of programs.

What we are really trying to carve out is a portion where we can get college graduate input for the foundation, so to speak, for the future senior people in the civilian work force.

That is just one initiative.

Senator QUAYLE. How long have you been doing that?

Admiral SANSONE. This whole effort of career development, career management program development has been in operation for 18 months. We have had a proposed Executive order prepared for about 6 months now and are working very closely with OPM and hope to be successful in obtaining concurrence and promulgation very soon.

Senator QUAYLE. You are finding that pool of potential resources on the college campuses and that is where you are placing much of your effort on recruitment?

Admiral SANSONE. Yes, sir, because that is what we lack—the initial input at the GS-5 level or GS-7 level. The 3-year Intern Program provides for automatic promotion to the journeyman level.

If their performance is satisfactory, they can complete their educational requirements and on-the-job training requirements within the 3-year period.

Looking at the military side, we have a limited number of billets for the trainees in the Navy Acquisition Contracting Officer Program. Our input to that program is 33 billets annually.

The input to the Business Financial Manager Program is eight billets annually. That turnover is in the neighborhood of 40 billets annually.

We are providing for the major portion of our development of contracting and business management personnel, but I think we need some help in terms of more input because you have to have a broader base of input in order to build the pyramid to the one position, the program manager, where you have flag-level officers and senior executive service civilians.

The broad base of input at the bottom of that pyramid is the one I am talking about.

Senator **QUAYLE**. You are talking about the GS-5 and GS-7, in that area?

Admiral **SANSONE**. Yes, sir; and the young junior officers for those programs that will train them to become contracting officers.

Senator **QUAYLE**. You say that this program has been going on for 18 months.

Do you agree it is because of lack of attention we have given the acquisition cycle that it has not had the priority that it has now and will probably have in the future?

Admiral **SANSONE**. Mr. Chairman, please recognize that I was dealing with all of the Federal agencies. All these agencies do not have similar programs. We are developing common programs for all of the Federal agencies, including DOD—a lengthy, deliberative process.

Senator **QUAYLE**. General Stallings, do you have a recruiting program going like the Navy does?

General **STALLINGS**. We are participating, of course, in the study that Admiral Sansone is talking about.

Senator **QUAYLE**. You don't have an active ongoing program?

General **STALLINGS**. Yes; we do have an intern program. Let me make a couple of points about that.

The first one is—and we will talk about civilians first—and I would like to make a couple of comments about the military also in response to your question. There is an intern program for our procurement program and we currently bring them in at the GS-5 level and after a reasonable period of time—as I recall, it is 3 years—if they perform satisfactorily, then they can progress to the GS-9 level.

The way the program is currently structured, part of the people who enter are already Army employees, but do not have a basic college degree when they start.

When we hire new interns from outside the Army or from the civilian environment, the vast majority do have a baccalaureate degree.

I think we could really improve our program, where those people who are recruited do not have a college degree, if we could offer them some sort of incentive that once they come into our program, we would then provide them with the wherewithal to get that degree and if they already have their baccalaureate degree, work toward an advanced degree.

Instead of bringing them in at the 5, bring them in at the 7 level so that they can advance into the 9 and 12, and that would put them in a pay category that we could better compete with civilian industries.

On the RDA side of the house we also have an intern program and those folks who come on board all have a college undergraduate degree. They do come onboard at the seventh level and that is a good program, and we are doing pretty well in retaining those people after they get onboard.

We have an intern program for both of those which you are specifically interested in.

I would like to say a couple of words in response to your question concerning the military.

In my view, the best way to encourage officers to get into the program, especially for the procurement side of the house, is that we can offer them a command equivalent type assignment.

Within the Army that has been a mark of great satisfaction for our officers if they can get into command billets, do a good job there and have them recognized as command billets.

Working with the folks from DLA, we have greatly increased the number of command positions that our people can go into. It has really turned around our ability to attract young officers into our procurement program because whereas a few years ago they could not see any sort of positions beyond lieutenant colonel, these new positions are lieutenant colonel and colonel.

Senator QUAYLE. You are talking about 3 years in procurement and 3 years in operation?

General STALLINGS. Yes.

Senator QUAYLE. Is that still the pattern?

General STALLINGS. Let me talk about that just for a second.

The second thing about our PM, the way to attract the young superstar and get him involved and get up to PM is to make that equivalent to a command. That is what the Army has set about.

I think that is a follow-on to what General Miley is saying. We have to recognize these PM positions are vitally important and to recognize them as equivalent to our command positions. I think that has done a lot to encourage our young officers who are going into the R&D side of the house to shoot toward the PM's, that they will get equivalent command recognition, and for procurement officers we have added actual command positions for them to serve in.

Our career pattern basically runs that we would like to see our junior officers that enter into the service greened first. We would like for them to serve in their branch that they came into, for example, either infantry officer or ordnance officer, for about the first 5 to 6 years, serving in that branch to learn what the Army is about, and we would like to green him.

After that time he can select either the procurement specialty or he can select an R&D specialty and we see him as serving in a dual basis, serving a tour in his specialty and then in operations and back to his specialty and back into operations on an alternating basis.

That is current Army policy.

Senator **Quayle**. Is that current Navy policy? Do you want them to stay the first 5 years somewhere else or do you want to get them into the acquisition?

Admiral **Sansone**. Our Navy Acquisition Contracting Officer Program takes place right after the first tour.

The first tour is initially afloat, for 2 or 3 years. Then we bring the officer ashore and we start the selective process into the acquisition contracting officer program. This occurs at the lieutenant JG level.

Senator **Quayle**. They will stay in that acquisition?

Admiral **Sansone**. They will stay in that until they complete their training. Then they will go to another tour, usually afloat. Then they will come back to a shore tour in acquisition and will continue to serve in acquisition tours with about a 50-50 split to start with and then it will take on——

Senator **Quayle**. Fifty-fifty operation and acquisition?

Admiral **Sansone**. Yes, sir. Then it will take on a little more imbalance in terms of acquisition vis-a-vis operational.

For example, I personally have not been back to sea in 18 years and I have been in the acquisition business that long. My current assignment has been for 5 years.

Senator **Quayle**. How does the Air Force do it?

General **Steere**. We have an organizational structure in the Air Force whose primary responsibility is acquisition and development. If you look at the 27 general officers we have in the Air Force System Command, the average in the acquisition business is about 15 years' experience.

If you look at our top five officers, namely, one four star and four three stars, they average about 20 years. So, it is very clear that there is a career path there that is undeniable.

The opportunities to proceed to the top are clearly evident and we have no problem of motivation. We are currently manned at approximately 40 percent lieutenants and captains.

So, I think with regard to military motivation, that really is not an issue.

I think on the civilian side there is a problem. It is a financial one. We have a lot of civilians interested in coming to work for us, but we cannot compete with the civilian industry in booming economy. That is a point we can work on.

Senator **Quayle**. Senator Bingaman?

Senator **Bingaman**. Thank you.

Let me refer back to a hearing we had here on November 16, 1983. It was before the full Armed Services Committee. Some of the testimony was from David Packard who has had some experience, both in the private sector and in the military, on acquisition management.

He made a statement there to which I would like to get your response. He said:

> I believe that each service should be restructured to have two clearly defined and separate career paths for the development of officers. One should be to train men and women as commanders of military forces.
>
> The other would be to train men and women as mangers of procurement.

Then he said that:

At the present time officers often rotate back and forth from military assignments to procurement and almost without exception project managers are not allowed to stay with that program long enough to actually see it to completion.

He would suggest that that could be another thing that we could fix if we had these two clearly defined separate career paths.

I would like any of you who would like to respond to address whether you think that is a good idea, or whether Mr. Packard is all wet on that suggestion.

Admiral SANSONE. If you look at our major project manager structure, we have 46 major projects. Forty-three of them are filled with military officers, and looking at the acquisition background of those officers, you will find that they have in excess of 8.4 years' experience on the average in the O-5, O-6 category. We also have a high level of experience in the projects based upon a snapshot at this point in time.

Senator BINGAMAN. Now, the eight point some odd years is not on that project, it is in the procurement field; is that right?

Admiral SANSONE. It is in the major system acquisition field.

Senator BINGAMAN. Yes, but not on that project?

Admiral SANSONE. Not on that project. We have a policy that we promulgated in 1982 which makes a minimum tour as Program Manager of 4 years. We have 74 percent adherence to that minimum rule at this point.

Prior to the Nunn amendment we require a flag officer waiver to move a Program Manager either before he was ready, that is 4 years were up, or whether he was at a program milestone. Now, of course, under the Nunn amendment we have the Secretarial approval required.

Senator BINGAMAN. Is it your thought that the officers you have, these 43 projects with an average exerience of 8 years in this field, are adequately qualified to fulfill that job?

Admiral SANSONE. When you look at the level of adequacy if you will, you will find there are nothing but advanced degrees, bachelor's or master's degrees.

Senator BINGAMAN. And these people are not spending half their military career in command positions and half in acquisition?

Admiral SANSONE. I would say about half because a mid-grade captain is 19 to 20 years. If your average is over 8 years, he is spending almost half——

Senator BINGAMAN. What would be your reaction to the suggestion Mr. Packard is making that we quit that and we have them either do one or the other and decide when they join the service which one they are going to do and stick with it?

Admiral SANSONE. I have a personal view if I may offer it. We have opted with the concept in the Navy that the operational training and experience that our officers receive afloat is very important to their ability to adequately manage a very highly complex and technical program.

So, the operational experience is a real supplement to his ability to manage a program to deliver a new weapon system to the fleet on time, under cost, and to really serve the need of the user.

Senator BINGAMAN. So you think Mr. Packard's suggestion is not a good one in that you think there is a value to the cross-fertilization that takes place between operations and acqusition. I can understand that.

Does anybody else agree or disagree?

General STALLINGS. I think the Army officers need to understand the operational portion of what we do, for a soldier is required to live under some real hardships, in tanks, a Bradley fighting vehicle, an M-1 tank, to understand the environment that they have to live in.

I think it would be a mistake for us to take officers that never had to live in that environment and put them in charge of the acquisition process to the exclusion of really knowing what that is about. I think that would be a mistake.

General MILEY. I don't think you have to fight inside a tank to experience what a tanker feels. Let me give you some history.

Up to 1962 we had in the Army something called Ordnance Corps. I am a product of the Ordnance Corps. I had to wait 4 years after graduating from West Point before I could get in the Ordnance Corps.

When I got home from the war in 1946, the Ordnance Corps sent me off to get my master's degree. From that day until the day I retired in 1975 I served in the procurement business.

Along the way I served a couple of tours in the ordnance maintenance business where I saw broken down tanks, I saw where and how soldiers lived, I knew what the requirements of the battlefield were.

My vintage has always disagreed with the idea you had to serve half your time in the fighting forces to be a good procurement officer. I still disagree with that.

Senator BINGAMAN. You basically think Mr. Packard's suggestion has some merit?

General MILEY. I think the basic concept of specialists has merit. I think you would create large problems by establishing a separate corps. If you are going to produce good procurement officers, you have to let them work at procurement full time and see a light at the top.

They have to see the generals that are in the procurement business came out of the corps they are serving in and not Joe, the combat arms guys, moving in at the three- and two-star level and cutting off their chances of promotion.

General STEERE. I think the Air Force would agree with Mr. Packard's statement. We can recognize the importance of operational experience. I think what he is driving at is keeping accountability of those working in the acquisition business, leaving them long enough to be accountable for the responsibilities they are given.

He also spoke at the same time in the same terms about decentralization where you give the individual responsibility as well as the authority and hold them accountable by leaving them in place long enough to exercise that responsibility.

I think when you marry those two, we would agree.

General STALLINGS. I would like to say that in recognition of what you are talking about, the Army has a program now, which is available to both the R&D officers and procurement officers. The

Army is developing approval of officers that could do these jobs later on in their career. This is the object of the MAM Program.

The Army, in its study of how we manage our officers, in October 1983, said that we are no longer going to require all of our officers to follow this dual course.

Available to a select number of officers that choose to do so, and that we choose also, if they are competent, is to follow a single track after the initial period that they spend learning their commodity and choose their specialty, be it R&D or procurement.

They can stay in that selective track all the way as high as their capability will take them.

Senator BINGAMAN. Let me ask General Stallings. It is my understanding that in the Army today if an officer wants to get a star, he had better stay in an operational command.

Is that accurate? You can do it the other way, but your chances are greatly reduced. Is that correct?

General STALLINGS. Historically the key to success in the Army has been in command positions.

Senator BINGAMAN. Historically and today as well or just historically?

General STALLINGS. That is what I want to say. I think we have made a good movement toward recognizing the importance of our project managers and saying to those folks that you are equal to our command positions. I think our promotions statistics will bear that out.

Senator BINGAMAN. General, I have some statistics here that there were three Army general officers that came out of procurement programs, out of 40, on a recent promotion list.

Is that accurate?

General STALLINGS. That is correct. There were three that were chosen specifically as procurement officers.

I might also mention there was a number that were former project managers in addition to those and I would like to furnish those for the record. As I recall, it was about three.

[The information follows:]

CAREER PATHS FOR PROCUREMENT MANAGEMENT

Results of the 1984 brigadier general promotion list was that 4 out of 64 selected had R&D background (Specialty Code 51).

General STALLINGS. Out of those, you would see three from procurement and three or four who were project managers. I think that is the signal that I am talking about, that we want to send to all our Army officers that the project management side of the house provides a key to the top just as our command does.

Senator BINGAMAN. Thank you.

Thank you, Senator Quayle.

Senator QUAYLE. Do you have a breakdown of your flag officers and what percentage of flag officers are acquisition people? What percentage is that?

Does anybody have that number? General Steere?

General STEERE. We have 27 at the present time in the Air Force system.

Senator QUAYLE. You have 27 in acquisition, 27 flag officers?

General **Steere**. That is correct. In our command itself.

Senator **Quayle**. How many flag officers do you have?

General **Steere**. 343, I believe.

Senator **Quayle**. And you have 27——

General **Steere**. That is in the Air Force Systems Command. We have acquisition officers in the Air Force Logistics Command, we have research and development people working in the Air Staff and we have procurement people working in the other commands.

I would like to provide that for the record, if I may.

[The information follows:]

Acquisition Flag Officers

The Air Force currently has 73 of its 343 general officers, or 21.3% of the total active duty general officer force, involved in acquisition management.

Senator **Quayle**. What I am looking for is the number of flag officers, O-7 and higher, who are in acquisition, and the ratio of the total.

To get to General Miley's point, someone has to see the way to the top quickly.

Admiral **Sansone**. I have a statistic for you. In the Navy we have a total of 253 flag officers authorized. We have 47 of those flag officers in the Naval Material Command, our acquisition command.

Of those 47 flag officers in the Naval Material Command, I was going to say all of them, but I might be wrong by one or two, all of them are weapon systems acquisition management designated, which means they have all of the requisite education and experience to have a separate designator in the weapon systems acquisition management area.

Now, 10 of those approximately 47 are in major program management jobs, serving program managers.

Senator **Quayle**. General Stallings, do you have any numbers?

General **Stallings**. Strictly in the procurement area we have, of course, the position I am in plus a general officer at the Department of the Army level. That is two. We have eight general officers that sit as heads of contracting activities. They wear a dual hat of being an HCA plus being in command of a commodity command.

The head of contracting activity is the chief procurement officer as well as being commander of that buying command. They have five deputy commanding generals. That is a total of 15 hard core acquisition procurement jobs right there.

Currently we have eight project managers that are general officers and I think that you would certainly want to include those in hard core acquisition jobs. So, that is a total of 23.

Senator **Quayle**. Twenty-three out of how many flag officers that you have?

General **Stallings**. I might furnish that for the record. It is somewhere around 400, but I will furnish that for the record.

[The information follows:]

Career Paths for Procurement Management

The number of general officers with acquisition specialties (Specialty Codes 97, 51 and 6T) is 84 of 412, or 20.4 percent. The number of general officer billets identified as related to acquisition is presently 36 of 412, or 9 percent. A review of other billets currently being conducted will increase this number significantly. A proposal to increase this number to 67, or 16.2 percent is being staffed.

Senator **Quayle**. On this breakdown, if you are going to have a dual hat, I want it clarified it is a dual hat. I want to see how many flag officers are basic weapon systems managers and contract procurement people.

I would just imagine that the ratio is probably pretty small which would lead to the next question: Would it be prudent to reserve more flag officer slots on a ratio basis for your acquisition people?

We are looking at getting to the top slot of the system and they are going to be judged on that promotion to flag officer on what they have done in acquisition, open up more of those slots to the top.

Do you think that is a good idea, General Stallings?

General **Stallings**. I think you are going to have to allow the Army to manage its own structure. I am not sure you want to dictate to us how we fill our general officer positions. That is a personal opinion.

I think we are picking our general officers to fill projected vacancies. So, as our general officer boards meet, we look at the vacancies that are coming up, both in the acquisition side of the house and in the operations side of the house.

So that when we pick our 50 or so officers that are on the list, from the colonel ranks to be our general officers, they are picked with the idea that they are going to fill authorized positions that are going to become vacant in the future.

So, you have to get at it by adding more acquisition positions for us to have the officers there. It needs some thought, sir.

Senator **Quayle**. Either that or change the mix. You could change the mix. We are not going to dictate to the Army, but my intent is certainly to prioritize where we ought to be going.

As far as I am concerned, we should be spending a lot more of our energy, talent, which means people at the top ought to be coming more out of the acquisition career field. I don't think we need to make a choice on day one whether you are going to stay in the acquisition cycle or be in operations, but I tell you I don't think you need to make it 50–50, half time in operations and half time in acquisition. I think that is far too much.

The acquisition officers don't get into actual designing of the program. They are responsible for carrying out that once it is designed. They may evaluate some of the design and things of that sort.

These are topnotch professional people, managers that have business backgrounds and know how to deal with contractors. The idea kicking around here that if you reserve more of the slots at the top for acquisition flag officers, that we might see more incentive to get into that system, I think that would be an incentive.

Does anybody disagree it would be an incentive for a young captain or somebody out there, lieutenant, to say, "Boy, I can get to the top, they are going to have these many acquisition officers, we have a few shortages right now"?

They might be willing to make a different career choice. I would think so. Anybody disagree with that?

Admiral Sansone. May I comment? I won't disagree. Our input in the officer corps to our subspecialty, the contracting subspecialty, is such that we are turning them away. We are selecting one out of eight applicants because of the interest that there is in our community in the procurement game.

We are filling all of our billets and we are filling them with the best as a result of that selection process.

Senator Quayle. You are turning away one out of eight?

Admiral Sansone. We are accepting one out of eight. We are getting an awful lot of applications.

Senator Quayle. You are turning away seven out of eight?

Admiral Sansone. That is right.

Senator Quayle. Is that the same situation in the Air Force?

General Steere. I think that is true. We are filled with nearly 40 percent lieutenants and captains and they are very serious and committed to a career in the Air Force System Command. They remain in that command for an extended period of time.

Occasionally, they leave and we encourage it for operational experience. There is a clear track from second lieutenant right on up to four star general.

Our Commander General Skantze is a program manager by trade. He has been in the Command numbers 24 years.

Senator Quayle. How about the possibility of having more course instruction at the academies in procurement than what we do now? This is going to be an important role.

Do you think we ought to take a look at what kind of curriculum we have and maybe make some modest suggestions of what we are doing at the Navy Academy or West Point or the Air Force Academy?

Admiral Sansone. We have reactivated, Mr. Chairman, the system acquisition management course at our PG school in Monterey. It was canceled 7 or 8 years ago. It is now reactivated.

The first input will be July of this coming year. While there are still graduates of that program around, we felt there was a need to reactivate the program to provide advanced degree education. That is one input.

In our Navy Supply Corps School at Athens, GA, we have modified courses there to include acquisition and contracting.

The Defense Systems Management College has a tremendous input of our people, Navy people, and they are offering courses in project management, business management, both short courses and long courses.

Senator Quayle. Is Defense Systems Management College sufficient?

Admiral Sansone. I think they are in the budget for additional brick and mortar, a new building that will give them more capability to offer more slots. I think that is a 1986 program, if I am not mistaken.

I would like to verify that for the record. I believe it is a 1986 program that is going to give us more capability at DSMC. I think we need that capability for the throughput that we require.

General Steere. I can speak specifically to the question of both the academies as well as the ROTC courses. We draw on the basic education during the entire career of the military officer.

I would be uncomfortable in tailoring that basic education because I know the engineering students coming out of college today are challenged with the technology they have to master at the basic level.

I believe there would be some risk of beginning to tailor job peculiar training in that environment. I think we can do a much better job once we take them on active duty and give them specialized training if they have a good solid educational foundation.

General **Miley**. I would recommend at the academy level, we do have a good year's course in ordnance engineering. They have something like that at West Point systems engineering.

If you can get the graduates coming out of the three academies with knowledge of how things are designed, why they fail and how machinery works, and then take them into the procurement aspect, that fundamental engineering background is invaluable for the rest of their life in procurement.

Senator **Quayle**. In other words, you think we could stress maybe more in our curriculum?

General **Miley**. Weapon systems design, weapon systems failure mode.

Senator **Quayle**. General Stallings, do you know what they are doing?

General **Stallings**. General Miley has spoken to fundamental engineering background. My answer would be the same for the academy.

We have kind of changed some of the names. We have gotten away from the old specifically ordnance engineering training that we had at the academy.

I would agree with what General Miley has to say. As far as PMSC is concerned, in building that pool of officers that we are going to need, we are going to need about 250 spaces a year starting in 1986. We are told PMSC will be able to accommodate them.

Admiral **Sansone**. Mr. Chairman, there were funds appropriated in fiscal year 1984 for Defense System Management College that will result in a new building by 1986. That will allow up to 324 students per class in the program manger course. That is projected by the DSMC Policy Guidance Council to meet all the input requirements for the 1986 to 1990 timeframe.

Senator **Quayle**. Gentlemen, I thank you. I will probably be visiting again either privately or publicly. It is an issue that is certainly important and one that we look forward to with mutual cooperation. It is a two-way street on how we can improve our system.

Thank you very much.

The committee will be adjourned until next Tuesday.

[Questions submitted by Senators of the ad hoc task force on selected defense procurement matters to be answered for the record follow:]

QUESTIONS SUBMITTED BY SENATOR DAN QUAYLE

NEW LAWS AND REGULATIONS TO FEDERAL CONTRACTS

Senator **Quayle**. There have recently been substantial changes to Federal contract regulations, as a result of the publication of the Federal Acquisition Regulation and the passage of several major statutes by Congress. What steps has your command taken to ensure that contracting officers are fully aware of these new laws and regulations?

Air Force

General STEERE. Several actions were taken by Headquarters, Air Force Systems Command (HQ AFSC) to ensure that contracting officers were aware of the changes resulting from the Federal Acquisition Regulation (FAR) as well as changes in supplementary regulations such as the Department of Defense FAR Supplement and the Air Force FAR Supplement. First, a 40-hour command training session was held 15-20 Jan 84. This training was conducted by personnel from the headquarters and was provided to 150 representatives from AFSC field activities. This intensive training was designed to familiarize personnel with the FAR system (including its organization, development, and maintenance), to highlight new material in the FAR not previously covered by its predecessor regulation (the Defense Acquisition Regulation), and to cover the basic rules under FAR for issuance of solicitations and contracts. Included within the training were numerous practical exercises, including the development of a "sample" solicitation, and formal tests to measure how well the information was retained by the participants. The personnel trained during this meeting were responsible, upon return to their parent organizations, for the training of personnel at those organizations.

Second, we issued supplementary guidance to the FAR in the form of the AFSC FAR Supplement. This provided over 200 pages of formal regulatory guidance, consistent with the FAR format, allowing for ready cross-reference to FAR and other supplementary regulations.

Third, we accomplished a reformat of our command-wide automated data base update used in the preparation of solicitations and contracts. This data base incorporated all FAR, DOD FAR Supplement, AF FAR Supplement, and AFSC FAR Supplement clauses (over 800 clauses for various standard contract types) into an automated system formatted in accordance with FAR. AFSC contracting officers can utilize this data base to accomplish solicitation and contract instruments automatically. The product is a contractual instrument complete, except for unique/local clauses or contract provisions.

As a result of these efforts, AFSC quickly incorporated the FAR approach into a standardized system of automated support and regulatory guidance already familiar to our employees in the field. This, combined with the training program from the headquarters, allowed these changes to be assimilated with minimum difficulty.

It is our intent to accomplish similar activities in support of recent statutes enacted by Congress, such as Public Law 98-369, the "Competition in Contracting Act," and Title XII of the Defense Authorization Act. As implementing regulations to be issued by DOD and HQ USAF are developed, we will structure training, regulatory guidance and automated support, as necessary, to ensure a smooth and effective implementation. We are currently working closely with our counterparts in those organizations to ensure that the goals are met.

Navy

Rear Admiral SANSONE. Two of the most recent substantial changes to Federal contract regulations are the implementation of the Federal Acquisition Regulation and the passage of the Competition in Contracting Act (CICA) of 1984. Policy advisory group sessions at the top management level have been held to ensure that all senior Navy contracting personnel are fully informed regarding the impact of these laws and regulations. In addition, training for all contracting personnel is considered essential. For example, for FAR implementation, a training plan for the Department of the Navy was published which provided for a cadre of 110 individuals to train over 6,000 GS-1100 series personnel at approximately 85 different locations throughout the United States. Plans for providing CICA training to all Navy contracting personnel are currently being developed.

Army

General STALLINGS. With the passage of P.L. 98-369, P.L. 98-525 and P.L. 98-577 the Federal acquisition community has been presented with significant changes to the federal procurement system. The Defense Acquisition Regulatory (DAR) Council and the Civilian Agency Acquisition (CAA) Council have been extremely responsive in preparing the massive changes to the Federal Acquisition Regulation (FAR) System implementing these important new statutes. Within the Army, Acquisition

Letters published by the Office, Assistant Secretary of the Army (Research, Development and Acquisition) and conferences attended and sponsored by Army Heads of Contracting Activities worldwide have proved effective for spreading the word about upcoming changes to the regulations and the impact of new laws.

The proposed changes to the FAR resulting from the recent Competition in Contracting Act were distributed to the entire Army for information and comment. The FAR temporary regulation change will be distributed in final form in January 1985 to allow proper action on proposed solicitations to be issued after 31 March 1985 and for preparation of implementing guidance and procedures.

Implementation of the Guarantee (Warranty) requirements of P.L. 98-525 has been prepared by the DAR Council for issuance as a temporary regulation change to the DOD FAR Supplement. As in the P.L. 98-369 regulation development, the U.S. Army Materiel Command has actively participated in preparation of this new regulatory guidance.

Other new changes involving spare parts acquisition and data rights have been assigned to the DAR Council and CAA Council subcommittee structure for preparation of FAR System regulatory coverage. The Army plays an important role in this process both at the subcommittee level and through its representatives on the DAR Council.

OVERSEEING R&D CONTRACTS

Senator QUAYLE. What type of individuals oversee research and development contracts? Are the skills, experience, background, and training required for management of R&D efforts different than those required for the management of production of weapon systems?

Air Force

General STEERE. Research and Development (R&D) contracts are awarded in the early stages of the acquisition process—conceptual, demonstration/validation, and full scale-development. In our assignment/selection process, we look for program managers (PMs) with the skills, experience, background, and training required to manage these R&D efforts. We select PMs that have (1) the highest degree of leadership and management skills, (2) operational and/or support experience in the weapon systems mission area, and (3) training in system acquisition through the Defense System Management College (DSMC) or Air Force Institute of Technology. In addition, almost all our PMs have an extensive educational background with bachelors degrees in an engineering field (electrical, mechanical) and a master degree in systems management or business administration. These characteristics and background are desirable in all our PMs.

There are some differences in the skills and background of PMs managing R&D efforts in the early stages of acquisition versus the management of weapon systems production. The conceptual phase (R&D) involves more study and research than hardware and acquisition. During this phase, the PM really is an engineering manager working to set the engineering basis for the system.

Navy

Rear Admiral SANSONE. Research and development contracts and production weapons systems are managed by officers who are chosen from a group of Board-selected officers by the Systems Command Commander and approved by the Chief of Naval Material. These officers generally come from a cadre of officers called WSAMs (Weapon Systems Acquisition Managers) who are also board-selected on the basis of acquisition experience, performance, and graduate education.

Required skills experience, background and training are very similar for both R&D and production. In fact many programs, even though in production, have associated R&D programs supporting modifications and weapons systems improvement subprograms.

Army

General STALLINGS. Procuring Contracting Officers that oversee research and development contracts must have the same skills as those overseeing weapons system production contracts. The contracting officer is supported by a team representing all functional disciplines. Engineering representation on the team is normally much greater in the R&D area. In many R&D efforts, the senior person developing the contract requirements and evaluating the resultant products for the contracting officer is an engineer. Because R&D is a continuous mission in some elements of the

Army, individuals who remain assigned to that element during extended periods develop specific skills and knowledge in R&D.

OPM CONTROL OF SES PERSONNEL

Senator **Quayle**. Could you describe what control the Office of Personnel Management exercises with respect to the number of Senior Executive Service personnel or higher grade Civil Service personnel in your service, and what impact does this have on the management of personnel resources? Would you recommend any changes to the system?

Air Force

General **Steere**. OPM approves the number of spaces available to Air Force for Senior Executive Service (SES), senior Scientific and Technical (ST), and GS-16 through 18 personnel. So far, this has not presented any major problems for us. However, while OPM has not previously exercised any controls over the number of lower graded positions, they are presently working jointly with the Office of Management and Budget to reduce civilian positions in the GS-11 through 15 range. The Air Force opposes arbitrary reductions of this type as they impede the ability of management to carry out its responsibilities. The Air Force believes that internal management of civilian grade structures is far more efficient than arbitrary, imposed controls. The General Accounting Office concurs in this view, at least with respect to Air Force and other Defense components. Therefore, the Air Foprce is committed to achieving equivalent personnel cost savings through a combination of sound position management, strict internal controls over the numbers of the high grade positions, productivity enhancing capital investment programs, and other similar economies and efficiencies.

Navy

Real Admiral **Sansone**. The Office of Personnel Management reviews agency SES allocations on a biennial basis. During this review current allocations are rejustified and forecasts of SES requirements for the next two fiscal years are made. If OPM allocates any spaces to DOD, they are then reallocated to the services. GM-13 through GM-15 personnel resources are constrained by budget limitations only. OPM is not directly involved in high grade controls. If Dr. Devine is successful in mandating reductions among our high grade skilled occupations, morale and mission will again be eroded.

Army

General **Stallings**. The Office of Personnel Management was charged by the Civil Service Reform Act of 1978 (PL 95-454) with responsibility for allocating Senior Executive Service (SES) positions to agencies. Each even numbered year each agency conducts a biennial survey of its executive requirements and submits its request to OPM which, in consultation with the Office of Management and Budget, authorizes a specific number of SES positions to each agency for the next two fiscal years. The limitation on the number of SES positions and the fact that Army has more requirements than authorizations necessitates putting all SES requirements in priority order to determine which may be filled. There are currently 50 unsatisfied SES requirements in the Department of the Army. Although there is a statutory limitation of the number of SES-level positions in the Federal government of 10,777, OPM has allocated only 8,975 for use; 1,802 less than allowed by law. While we have no specific recommendations for change in the system, Army's need would be better served if OPM, with their current flexibility in numbers, were less restrictive in authorizing valid SES requirements.

The Office of Personnel Management (OPM) exercises control over the numbers of high grade Civil Service personnel through the issuance of position classification standards which provide the criteria for determining the grade level of positions. While OPM has no formal control over numbers of higher graded positions, the standards, in effect, limit the number of higher graded positions. In December 1983, OPM issued new standards which provide grade level guidance for classifying positions, GS-5 through GS-15, which perform work involved in procurement of supplies, services, construction or research and development using formal advertising or negotiation procedures; the evaluation of contract price proposals; and the administration or termination and close out of contracts.

MIX OF MANAGEMENT PERSONNEL

Senator Quayle. How did your service decide on the appropriate mix of management personnel for procurement activities between military officers and civilians?

Air Force

General Steere. The Air Force uses four types of manpower to accomplish Air Force workloads: military (active, Reserve, or National Guard), in-service civilian, contract, and Host Nation Support. In general, military manpower is used in positions needed for: combat or direct combat support to meet wartime requirements, continental versus overseas rotation, career progression, inherent command responsibilities, and in positions requiring military training and experience. The current mix for officer positions in procurement activities, i.e., acquisition management, program management, and acquisition contracting/manufacturing, is 40 percent military and 60 percent civilian. Three-fourths of the military personnel in procurement activities are required for their military training and experience. The remaining active duty personnel are needed for military presence outside the Air Force, military justice requirements, and other military essentiality criteria.

Navy

Rear Admiral Sansone. The designation of a program manager is done on the basis of the most qualified individual for the position, civilian or military. The Navy has a mix of both, but there exists no quota for either group.

Army

General Stallings. The Army determines the mix of managerial procurement personnel based upon the location and mission of the organization and level and type experience and training required for procurement managers assigned to those organizations. Military procurement managers are normally assigned in remote overseas activities, organizations with contingency missions or substantial interaction with Army systems users, and positions requiring knowledge of and experience with field applications of Army equipment. Civilian managers are predominantly assigned to activities in the United States, organizations with a peacetime procurement mission, and positions with a need for assignment stability.

CIVIL SERVICE PAY SCALES

Senator Quayle. With respect to civilians in your commands, are Civil Service pay scales an impediment to recruiting and retaining individuals of adequate skill, education, and experience to competently manage the acquisition, support, and maintenance of weapon systems?

Air Force

General Steere. The Air Force is experiencing increasing difficulty in recruiting and retaining qualified civilian engineers to support weapons systems. At a recent job fair in Los Angeles, California, Air Force recruiters discussed employment opportunities with approximately three hundred electronics engineers. Only four indicated interest; none were actually hired. The most frequently voiced person for lack of interest in Air Force employment was comparative pay and benefits relative to the private sector. At Aeronautical Systems Division, Wright-Patterson AFB, Ohio, the number of electronic engineers resigning to accept jobs with private industry has increased by over one hundred percent in the past two years. The departing GS–12 level engineers reported an average starting salary with industry of $44,000 while the maximum GS–12 salary was $39,711. The average disparity was $7,000, and does not take into account fringe benefits such as company-paid health insurance. A College Placement Council survey taken during the summer of 1984 indicated the average starting salary of newly-degreed engineers to be $26,000, while the maximum starting salary with the Air Force was $22,387. These disparities force the Air Force to employ less than the best candidates in many cases and the workforce turbulence caused by turnover increases the costs of training, overtime, and contract services.

Navy

Rear Admiral Sansone. Within NAVMAT we generally recruit and develop our people at the trainee level using our intern program and schedule B hiring authority. We usually do not recruit from outside to fill our senior level positions in these fields due to our inability to compete with upper level salaries in industry. The attacks on the civil service compensation system are having an adverse effect on our workforce. Morale is low and low morale creates decreased productivity. Our best trained and most experienced employees are leaving. Within Navy 6.5% are resigning compared to OPM's estimate of 3.8% for total Federal Government. This situation, if fueled by OPM cuts in pay and benefits, will accelerate the "Federal brain drain."

Army

General STALLINGS. With regard to Army Materiel Command experience, there is no evidence that current Civil Service pay scales are an impediment to recruitment in retention in any occupation supporting the acquisition, support and maintenance of weapons systems. The Procurement and Engineering and Scientists Career Programs have ample candidates for entrance positions in those programs. The candidates for engineering entrance positions generally have obtained a university scholastic average of B. While Civil Service pay rates for entrance engineering positions are below those for private industry, such rates are higher than the regular General Schedule rates. Provided all criteria are met, we are also able to promote these individuals to the next higher grade after 6 months versus 12 months for other Civil Service positions. Such a provision is an incentive for individuals to come to work for us. Retention of these individuals is not a problem. In the Procurement Career Program approximately 60% of our entrance positions were recruited from sources external to the Federal Government. HQ Army Materiel Command staff members involved in the recruitment processess for entrance positions have indicated that even in all Procurement entrance positions were recruited from external sources, there would be no difficulty in finding suitable candidates. Retention of Procurement personnel is not a problem. In the area of maintaining weapons systems, AMC has 1,223 positions at the GS-12 and above grade levels providing assistance worldwide. Of these 1,223 approximately 50 are vacant with the majority of these being newly established positions. AMC subordinate commands responsible for these positions have indicated that no problems are anticipated in filling the vacant positions.

FOUR-YEAR ASSIGNMENT FOR PROGRAM MANAGERS

Senator QUAYLE. What is your assessment of the law passed last year by the Congress requiring a four-year assignment for major weapon systems program managers?

Air Force

General STEERE. The purpose of the legislation is to promote stability in the DOD acquisition process. The primary effect will be to reduce personnel management flexibility regarding our key program managers, particularly with waiver authority at the Secretary level. As a practice, the Air Force always tried to make rotation dates for program managers coincide with major program milestones.

Whether the law will improve program stabilty is unclear. There are many destabilizing factors outside the control of the program manager. However, the law, and AF and DOD initiatives such as program baseline and multiyear procurement, should collectively enhance program stability, other factors remaining constant.

Navy

Rear Admiral SANSONE. The four year tenure establishment by law last year has no effect on the Navy as this has been Navy policy for several years, and was established in writing in February 1978 (BUPERSINST 1040.2B).

Army

General STALLINGS. The Army agrees there was need to reduce the turnover of program managers (PMs). Passage of the law requiring the tour of duty for PMs of major programs to be not less than four years or until completion of a major program milestone will undoubtedly enhance the professional skills of our PMs, enhance management continuity, and introduce more accountability for specific program results.

SERVICE TIME FOR PROGRAM MANAGERS

Senator **Quayle**. How long do major weapon system program managers typically serve in your service?

Air Force

General **Steere**. AFSC program manager tenure is averaging about 29 months. Industry program manager tenure is averaging about 36 months—based on a survey of SAR prime contractors conducted in May 84 by AFSC.

Tenure is a two-edge sword. While there are benefits from long tenure (e.g. corporate memory, historical basis for decisions, enhanced understanding of complex program environment), there are also benefits from limiting individual program manager tenure. Mobility is important. It provides for fresh perspectives, innovative approaches to institutional problems, dynamic program leadership, and mitigates against stagnation, complacency, or the development of too close an identity between the program manager and his system.

Navy

Rear Admiral **Sansone**. It is Navy policy that Major Program Managers will have minimum tours of four years with rotation to coincide with major program milestones. I spoke about 46 major projects in my testimony. The 46 are the ones the Navy considers equivalent to a major ship or shore command. The question addresses major weapon systems which we define as those for which the Secretary of Defense has retained decision authority. We have 14 programs in this category. The 14 major programs (ACAT I) break out as follows:

Program	Current P.M. reported	Proj. rot. date [PRD]	Tenure ata PRD
AMRAAM	May 1981	May 1985	4 yr
ASPJ	August 1983	September 1987	4 yr
ASW stdoff wpn	January 1983	June 1986	3 yr
Adv tact radar	August 1984	August 1988	4 yr
CV IZ ASW HELO	May 1984	May 1988	4 yr
Harm	May 1983	May 1987	4 yr
HF anti-jam	November 1984	November 1988	4 yr
JTIDS	July 1980	October 1984	4 yr 3 mo
JVX	December 1981	December 1985	4 yr
Navstar	August 1980	July 1985	4 yr 11 mo
New SSNX	January 1984	January 1988	4 yr
Subacs	July 1980	July 1985	5 yr
Torpedo mk 50	February 1979	August 1985	6 yr 7 mo
VTXTS	December 1982	November 1986	3 yr 11 mo

Thus the average tenure forecast for current ACAT I program managers is four years and 3 months.

Considering historical data from prior ACAT I programs, the average tenure of the predecessor to the incumbent PM as of 3 May 84 was:

Program	Tenure of predecessor
AMRAAN	4 yr 5 mo
ASPJ	6 yr 3 mo
ASW stdoff wpn	4 yr 10 mo
DDG-51	2 yr 9 mo
Harm	3 yr 11 mo [1]
IR Maverick	3 yr 11 mo [1]
Trident I/II	2 yr 10 mo [2]
VTXTS	4 yr 1 mo

[1] Both predecessors selected for flag rank.

[2] Average of two predecessors.

This historical data does not include newly formed programs nor programs where PMs were rotated early for cause. Thus the average historical tenure equates to four years and 1 month.

Army

General **Stallings**. For calendar year 1984, average tenure of departing PMs was 3.9 years. Our goal has been 3-5 years.

PERFORMANCE EVALUATION OF PROGRAM MANAGERS

Senator **Quayle**. What guidelines would you use to evaluate the performance of a program manager? Would such guidelines be output oriented—that is, whether the system for which the person was responsible met the military requirement, was on schedule, and under cost?

Air Force

General **Steere**. Performance is the key. The program manager's performance is continually reviewed to insure it meets the highest standard of excellence. Each field commander reviews the progress and performance of all program managers with the AFSC Commander.

Program managers are accountable for maintaining the cost, schedule and requirements baseline. Not only are they accountable to their immediate headquarters, but the structured series of program reviews by AFSC, the Air Force Secretariat and OSD provide almost constant high level visibility into the performance of individual program managers.

In addition, the size of the oversight structure ensures that program managers and all levels of acquisition management are consistently subjected to external evaluation. Included are the SAR and Unit Cost Reports, IG inspections by AFSC, Air Force and DOD; GAO, OMB and Congressional investigations, reviews and inquiries; and a variety of other reporting and inspection requirements.

If appropriate, program managers are replaced as soon as it becomes apparent that their performance does not meet these standards. Few program managers ever really fail due to the rigorous formal selection process. Nominations of all program managers for major programs are approved by the AFSC Commander.

Navy

Rear Admiral **Sansone**. Cost, schedule and performance are certainly important factors in the evaluation of program manager performance, but these are not the only ones. Of equal importance is the program manager's ability to work around changing conditions over which he has no control, such as mandated budget cuts, changes to production rates, etc.

The program manager must be evaluated on all aspects of his performance, not solely the end item, and it is this total picture that is used by the Navy.

Army

General **Stallings**. Basically, a PM's performance evaluation should be based on how well he managed his resources (e.g., personnel, equipment, money, and time); his management techniques and innovations; the complexity of his program; his personal qualities (e.g., leadership and ingenuity); and how well he has met or exceeded agreed upon program objectives (e.g., cost, schedule, performance, product quality, and supportability of the product when placed in the hands of the Army in the field).

QUALIFICATIONS OF PLANT REPRESENTATIVES

Senator **Quayle**. What are the qualifications, experience, and training you would expect of someone who commands a plant representative office or supervisor of shipbuilding operation?

Air Force

General **Steere** The size, type and complexity of the work being done by a defense contractor determines the qualifications required of the officer who commands the plant representative office. The requirements are broadly varied. As a minimum, each commander is an experienced career officer with proven leadership and managerial skills. Additionally, some specific qualifications found among commanders of our plant representative offices include 1) formal training in defense contract management, 2) experience in contracting manufacturing duties at base and staff levels, 3) experience in defense systems acquisition, 4) operational experience with the weapons systems or sub-systems covered by the contract and 5) experience as a commander or director.

Navy

Rear Admiral Sansone. Supervisors of Shipbuilding (SUPSHIPs) and Commanding Officers of Naval Plant Representative Offices (NAVPROs) are highly competitive positions and the qualification requirements include:

Engineering Duty Officers for SUPSHIPs and ship systems NAVPROs; Aviation Engineering Duty officers for aviation systems NAVPROs,

For mature, stable production programs other qualified acquisition and logistics officers, such as Supply Corps officers, are considered for and have served as commanding officers of NAVPROs

A masters degree, generally in engineering, business and/or financial

Previous tours in SUPSHIPs or NAVPROs,

Fleet tours as a junior officer,

Aviation experience in the contractor's aircraft for aircraft plant NAVPROs,

Designated as a proven Weapons System acquisition specialist for NAVPROs and new construction SUPSHIPs,

Experience in dealing with and directing a civilian oriented organization and

Executive courses at the Defense Systems Management College

Captains and Commanders (who are in the zone for selection to Captain) holding the foregoing qualifications are screened and the records of the best performers provided to flag officers of the appropriate community, i.e. the Naval Sea Systems Command, Headquarters Naval Material Command or the Naval Air Systems Command, who make the final selections of Supervisors of Shipbuilding and Commanding Officer of NAVPROs. The qualification requirements and selection process ensure we get the type of talent, training and experience we need for SUPSHIPs and NAVPRO Commanding Officers.

Army

General Stallings. The Army has three plant representative offices (ARPROs) which are commanded by fully qualified Colonels (O-6). The ARPROs are all aviation plants located at Bell Helicopter, Hughes Helicopter, and Boeing-Vertol. The Commander's position is designated with specialty codes 71A97 (Aviation Logistics, Procurement). They are all qualified Army Aviators and commodity qualified by aircraft type. They are also fully qualified by the specialty codes in all aspects of Aviation Logistics and Procurement. The Commanders have aircraft maintenance and material acquisition backgrounds. They receive intensive training in both specialties along with Project Management training. They are college graduates and often have a master's degree in Acquisition and Contract Management.

CAREER EXPERIENCE OF EACH PROGRAM MANAGER

Senator Quayle. Please provide a summary of the complete experience (showing all assignment) of each program manager for a major defense acquisition program as of December 13, 1984. Annotate each career summary to show the number of years of experience in the acquisition, support, or maintenance of weapon systems, and the particular assignments that are regarded as relating to the acquisition, support, or maintenance of weapon systems.

AIR FORCE

General Steere. The career summaries of this Command's Selected Aquisition Report (SAR) Program Managers are attached and annotated as requested. In addition, a summary sheet has been prepared listing the SAR programs, their current program manager, whether that person has had prior system program office experience, whether that person has held the position of program manager in the past and the career experience, to the closest year, relating to the acquisition, support, and maintenance of defense weapon systems. To calculate the total years experience certain assumptions were made. First, all Air Force Systems Command (AFSC) assignments whether in a lab, support, product division, or headquarters were considered. Second, assignments with "user" commands relating to the acquisition of a specific weapon system were considered. These assignents could include liaison positions, members of a test or deployment team and the like. Third, operational assignments in direct support of a weapon system or the direct operation of a weapon system were considered. These assignments usually included test pilot, or manager of a weapon system while assigned to an operational command. Fourth, Headquarters assignments outside AFSC in direct support of weapon systems acquisition. Assignments in this area include Headquarters Air Force, Program Element Monitors (PEMs). Finally, any advanced academic assignments in a discipline directly related to acquisition or the development of a weapon system were considered. Assignments in Education With Industry, attendance at the Program Manager's Course, Defense Systems Management College, and Air Force Institute of Technology degree programs in Systems Management and related career fields fall into this category. Not considered in the calculations were all time periods spent in Professional Military Education (PME) Courses, and technical schools. The calculations were made as objectively as possible based on those assignments contributing to the overall experience level of a program manager.

SAR PROGRAM MANAGERS

PROGRAM	PROGRAM MANAGER	PRIOR SPO	PRIOR PM	CAREER EXPERIENCE ACQ & RELATED YEARS
AIRLIFT	MG	X	X	14
C-5B	COL	X	X	20
KC-10A	COL	X	X	7
C-17A	MR	X		16
KC-135R	LTC	NONE		9
ACS/EJS	LTC	NONE		6
AIM-7M	LTC	X		3
ALCM	COL	X	X	9
AMRAAM	COL	X	X	14
B-1B	MG	X	X	20
CONUS OTH-B	COL	X	X	19
DMSP	COL	X		14
DSCS III	COL	X	X	15
DSP	COL	X	X	18
E-3A	BG	X	X	14
F-15	COL	X	X	12
F-16	BG	X	X	16
GLCM	COL	X	X	8
GPS (NAVSTAR)	COL	X	X	18
HARM	LTC	X	X	18
HH-60A	MR	X		16
IR MAVERICK	COL	X	X	11
IUS	COL	X		10
JTIDS	LTC	X		16
LANTIRN	COL	X		10
LGBK	COL	X	X	14
PEACEKEEPER	MG	X	X	18
PLSS	LTC	X		9
SPACE DEF SYS	COL	X	X	18
ASAT	COL	X	X	12
T-46A	COL	X		10
TRI-TAC	COL	X		9

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                              NAME:
                                                            GRADE: BG

**** ACADEMIC DATA ****       *** PROFESSIONAL MILITARY EDUC **    *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL          COURSE          METHOD       YR    1ST FA3 INFO MGMT FOR SR EXEC        82
MAS  BUS ADM & MGT             ICAF            COR            75    2ND R3B SYS ACQ ORIENT               81
     SMU TX              65    SQ OFF SCH      RES            59    3RD SY7 SEE CO-820 AFM-300-4         76
BAC  CHEMISTRY                                                      4TH AF2 CCR TRAINING SAC B52-77      60
     MISS ST U MS              NONE                                 5TH EHR SEE CO-820 AFM 300-4         60
DUTY *************** DUTY HISTORY ************* MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ************************
EFF-DT   DAFSC  DUTY TITLE (CURRENT & HISTORY)   ID  DET  NBR  KIND             TYPE LVL  LOCATION
01SEP80   0002  DEP FOR ALFT AND TRNR SYS        SYS 0000 0000 AERO SYSTEMS     DIV  INTC WR PATT/SYS       OHIO
15APR80   2996  DEP FOR ALFT AND TRNR SYS        SYS 0000 0000 AERO SYSTEMS     DIV  NAF  WR PATT/SYS       OHIO
16JAN80   2996  SYS PRGM DIR C-X SPO             SYS 0000 0000 AERO SYSTEMS     DIV  NAF  WR PATT/SYS       OHIO
18JUN77   2996  DIR EF111A TJS PO DIR            SYS 0000 0000                  DIV  INTM WR PATT/SYS       OHIO
02JAN77   2991  DEPDIR FIGHTER ATTACK SPO        SYS 0C00 0000                  DIV  NAF  WR PATT/SYS       OHIO
31JUL74   2716  MILITARY STAFF ASSISTANT         HAF OSD1 0000 U S AIR FORCE    HQ   DD/J PENTAGON          VIR
28FEB74   2211  CH EW BRANCH                     HAF PRP1 0000 U S AIR FORCE    HQ   HAF  PENTAGON          VIR
27NOV73   2211  CH EW BR                         HAF 0000 0000 U S AIR FORCE    HQ   HAF                    DIC
22AUG72   1516  AIR OP STF OFF                   SAC 0000 0000 STRATEGIC AIR    DET  CMHQ                   FLA
17APR72   1516  AIR OP STF OFF                   SAC 0000 0000 STRATEGIC AIR    DET  CMHQ                   FLA
16OCT71   1516  AIR OP STF OFF                   SAC 0000 0000 STRATEGIC AIR    CMD  CMHQ                   FLA
14OCT70   1516  AIR OP STF OFF                   SAC 0000 0000 SUPPORT          DET  CMHQ                   FLA
13JUL70  E1516  SIR OP OFF                       SAC 0000 0000 STRATEGIC AIR    CMD  CMHQ                   NEB
03APR70  E1511  AIR OP OFF                       SAC 0000 0000 SUPPORT          SQ   CMHQ                   NEB
02APR69  E1516  AIR OPS STF OFF                  SAC 0000 0000 SUPPORT          SQ   CMHQ                   NEB
16MAY68  E1575  ELCT WRFR OFF                    SAC 0000 0000 SUPPORT          SQ   CMHQ                   NEB
24JUN67  E1575  ELCT WRFR OFF                    SAC 0000 0000 SUPPORT          SQ   CMHQ                   NEB
23AUG66  E1575  ELECTRONIC WARFARE OFF           CMC 0000 0000                  SQ   CMHQ                   NEB
10APR66   1575  EWO.EB66                                                        SQ   SQ                     THAIL
```

NAME:

AF Form 11 not available. The following represents prior duty history:

Date	DAFSC	Duty
15Jul63	1575	Penetration Aids Officer, HQ 43 Bomb Wg, Texas
16May64	7421	Student, Graduate Business Admin, SC Meth Univ
22Sep65	1575	Electronic Warfare Officer, 9th Tac Recon Sq, Shaw AFB, SC
8Dec65	1575	Electronic Warfare Officer, 41 Tac Recon Sq, Takeli AB, Thailand

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NAME:                            GRADE: COL



•••• ACADEMIC DATA ••••   ••• PROFESSIONAL MILITARY EDUC ••   ••• PROFESSIONAL SPECIALTY COURSES •••
LVL  SPECIALTY / SCHOOL      COURSE        METHOD        YR   1ST MFA MGT TNG PRGM AF SUPVR MGT 1 78
MAS  BUS ADM/MGT,GENERA   ICAF          RES              81   2ND N83 PROGRAM MGT CRS OF DEF MGT S76
     AUBURN U MONT   77   AC&STAFF      RES/COR          77   3RD AJ3 COUNTERINSURGENCY COURSE    67
MAS  PHYSICS,ASTROPHYSI   SQ OFF SCH    RES              67   4TH
     AFIT WPAFB   OH      NONE                                5TH

DUTY •••••••••••••• DUTY HISTORY ••••••••••••• MAJ ORGANIZATION (CURRENT & HISTORY)• CMD •••••••••••••
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND                TYPE LVL  LOCATION
01NOV81  2816  DIR ENGINEERING STANDARDIZATION ELM DESC 0000 AFELM DLA/D SUP CT DLOG DD/J DAYTON


02JUL81  2816  SP ASST TO DIR ENG STDN         ELM DESC 0000 AFELM DLA/D SUP CT DLOG DD/J DAYTON
11AUG80  0003  STUDENT  ICAF                   ELM ICAF 0000 AFELM NDU          JCS  STU  FT MCNAIR
10FEB80  2716  CH PROJECTS DIV C X SPO         SYS 0000 0000 AERO SYSTEMS       DIV  INTM WR PATT/SYS

10DEC79  2716  CH PROJECTS DIV C X SPO         SYS 0000 0000                    DIV  INTM WR PATT/SYS
25JUL78  2716  CHIEF PROJECTS DIV AMST SPO     SYS 0000 0000                    DIV  INTM WR PATT/SYS
PCN SP030                   FOR OFFICIAL USE ONLY        PAGE 1
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LAST NAME	FIRST NAME	MI	AFSN	GRADE	PLACE OF BIRTH	DATE OF LAST OER	
		[redacted]	[redacted]	CAPT 67 74 MAR 14	[redacted] [redacted]	73 SEP 18	2

CHRONOLOGICAL LISTING OF SERVICE

EDOA	DAFSC	BRIEF DESCRIPTION OF DUTY—ORGANIZATION AND STATION
9Jun62 to 24Aug62, Comm, 2d Lt (RES)//		
		CONTINUOUS SERVICE FROM 25 Aug 62
4Sep62	2611	Stu, (Grad) Engr Space Physics, AFIT, w/dy Sta School of Engr W-P AFB, Ohio (AU)
18Sep64	E2635B	Physicist, Hq ESD, LG Hanscom Fld, Mass (AFSC)
17Oct66	E2631B	Physicist, Dev Engr Div, Hq ESD, LG Hanscom Fld, Mass (AFSC)
67Jul20	2631D	Physicist, TDY (PROJECT OPEX),Tactical Fighter Weapons Center, Nellis AFB,NEV. (TAC)
67Dec20	2631D	Physicist,PlasmaPhysics(6CB)ExecOfc,AFWpnsLab,KirtlandAFB, NMex (AFSC)
68Dec19	2635D	Physicist,PlasmaPhysics(6CB)ExecOfc,AFWpnsLab,KirtlandAFB, NMex (AFSC)
68Dec16	2635B	Physicist/Electromagnetic&OpticalPhysics Branch,KirtlandAFB,NMex (AFSC)
72Sep22	2635B	NAF, Survivability/Vulnerability Proj Mgr,Hq Aero Sys Div,Wright-Patterson AFB, Ohio (AFSC)
72Oct23	2941	NAF, Survivability/Vulnerability Proj Mgr,Hq Aero Sys Div,Wright-Patterson AFB, Ohio (AFSC)
73Jun01	2941	NAF, SUR/VUL PROJ MGR, DEP for A-10, Hq Aero Sys Div, Wright-Patterson AFB, Ohio (AFSC)

9 COMBAT REPORT	10 REMARKS
	Previous service no: FV 3130954// [redacted]

U.S. GOVERNMENT PRINTING OFFICE [illegible]

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            NAME:                        GRADE: COL

**** ACADEMIC DATA ****    *** PROFESSIONAL MILITARY EDUC **    *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL       COURSE          METHOD       YR   1ST PUQ SEE CO-820 AFM-300-4         84
MAS  BUS ADM/MGT.GENERA    ICAF          RES               83   2ND AF8 CENTRAL FLT INSTR KC135      77
     WEBSTER COL MO  77    NAT SCTY MGT COR                77   3RD AF6 CCR TRAINING SAC KC135-77    75
BAC  AEROSPACE ENGINEER    AC&STAFF      COR               74   4TH ELU PLT INSTR TNG  T/38-70       68
     U ARIZONA     AZ      SQ OFF SCH    RES               71   5TH ERR BASIC SURVIVAL TNG           67

DUTY ************** DUTY HISTORY ************* MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ************************
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND               TYPE LVL  LOCATION
01DEC83  2991  DEP DIR AND KC-10 SYS PRGM DIR  SYS 0000 0000 AERO SYSTEMS       DIV  INTC WR PATT/SYS        OHIO
22JUN83  2991  DEPUTY DIRECTOR AND KC-135 SPO  SYS 0000 0000 AERO SYSTEMS       DIV  INTC WR PATT/SYS        OHIO
09AUG82  0003  STUDENT, ICAF                   ELM ICAF 0000 AFELM NDU          JCS  STU  FT MCNAIR          DIC
23FEB81  1435Y ASST DEPUTY COMDR FOR OPS       SAC 0000 0068 BOMBARDMENT HVY    WING W/B  SEYMOUR JOHN       N CAR

19JUN80 A1065C COMDR                           SAC 0000 0911 AIR REFUELING HVY  SQ   UNIT SEYMOUR JOHN       N CAR
19MAR80 A1061C SQUADRON COMMANDER              SAC 0000 0911 AIR REFUELING HVY  SQ   UNIT SEYMOUR JOHN       N CAR
20DEC79  1435Y CHIEF, TANKER BRANCH            SAC XP00 0000 STRATEGIC AIR      CMD  CMHQ OFFUTT             NEB
23MAY79  1435Y MGR ADVANCED TANKER CARGO ACFT  SAC XP00 0000 STRATEGIC AIR      CMD  CMHQ OFFUTT             NEB
31JAN79  1435C MGR ADVANCED TANKER CARGO ACFT  SAC XP00 0000 STRATEGIC AIR      CMD  CMHQ OFFUTT
15MAR78  1435C CHIEF MISSION DEVELOPMENT       SAC 0000 0340 AIR REFUELING HVY  GP   SQ   ALTUS
17OCT77 K1065C INSTRUCTOR ACFT COMDR KC 135 CR SAC 0000 0011 AIR REFUELING HVY  SQ   SQ   ALTUS
01JUL77 N1065C OPERATIONS OFFICER              SAC 0000 0011 AIR REFUELING HVY  SQ   SQ   ALTUS
19JUL76 N1065C ASST CHIEF FLIGHT CREW SECTION  SAC 0000 0011 AIR REFUELING HVY  SQ   SQ   ALTUS
09DEC75  1065C AIRCRAFT COMMANDER KC 135       SAC 0000 0011 AIR REFUELING HVY  SQ   SQ   ALTUS
05DEC75  2845A PROJ MGR SPACE TEST PRGM P72 2  SYS 0000 0000 SPACE/MISSILE SYS  ORG  NAF  LOS ANGELES
19JUL75  1061  SAC CCR TNG CRS KC135           SAC 0000 0011 AIR REFUELING HVY  SQ   STU  CASTLE
02MAR74  2845A PROJ MGR SPACE TEST PRGM P72 2  SYS 0000 0000 SPACE/MISSILE SYS  ORG  NAF  LOS ANGELES

01JUL73  2845A ACTG CH LCH OP ENGRG I FCT      SYS 0000 0000 SPACE/MISSILE SYS  ORG  NAF
31DEC72  2841A ASTRO ENGR GENERAL              SYS 0000 0000 SPACE/MISSILE SYS  ORG  NAF
30AUG72  2841A ASTRO ENGR                      SYS 0000 0000 SPACE/MISSILE SYS  ORG  NAF
17APR72 F1115Z CH FLT TEST                     ATC 0000 0000 FLYING TRAINING    WING WING
16OCT71 F1115Z CH FLT TEST                     ATC 0000 0000                    WING WING
16JAN71  1355C STU SQ OFF SCHOOL               ATC 0000 0000                    SQ   STU
30DEC69  1355C ASST FLT COMDR                  ATC 0000 0000                    SQ   SQ
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LAST NAME	FIRST NAME	MI	AFSN	GRADE	PLACE OF BIRTH	DATE OF LAST OER	
[redacted]	[redacted]		[redacted]	CAPT 74Apr03	[redacted]	74 JAN 23	2

CHRONOLOGICAL LISTING OF SERVICE

EDCSA	DAFSC	BRIEF DESCRIPTION OF DUTY—ORGANIZATION AND STATION
1Aug61to	19Dec63	Enl, HG SSGT, Prin Duty Bsc Tng & Stu OTS (AAD)
		Continuous Service From 20 Dec63
20Dec63	2841A	Hq OTS, USAF, Lackland AFB, Texas (ATC)
6Jan64	2841A	Astronautical Engr, Det #48, North American (Los Angeles Div), AFPRO, Los Angeles International Airport, Calif, Hq WCMR (AFSC)
1Apr65	2841A	Astronautical Engr, Det #15, North American Aviation, Los Angeles Div, AFPR, Hq AFCMR, Los Angeles AFS, Calif (AFSC) (BSDSG)
22Apr65	0006	Pilot Trainee, 3501 Stu Sq, Reese AFB, Texas (ATC)
16May66	1111R	Stu Off, Crses 111107R & 111507F, Davis-Monthan AFB, Ariz, 16 Tac Ftr Sq, Eglin AFB, Fla (TAC)
25Sep66	1111R	Stu Off, Survival Tng, Fairchild AFB, Wash, 16 Tac Ftr Sq, Eglin AFB, Fla (TAC)
25Oct66	1111R	Plt Sys Opr, 16 Tac Ftr Sq, Eglin AFB, Fla (TAC)
~~6 Feb67~~	~~1115R~~	~~Plt Sys Opr (TACF), 40 Tac Ftr Sq, Eglin AFB, Fla (TAC)~~
6Feb67	1115R	Plt Sys Opr (TACF), 40th Tac Ftr Sq (TAC) Det 1, Eglin AFB, Fla.
28May67	1115R	Sq, Pilot Tac Ftr, 497 TAC FTR SQ, UBON RTAFB, THAILAND(PACAF)
20Jun67	1115R	Sq, Pilot Tac Ftr, 555 TAC FTR SQ, UBON RTAFB, THAILAND(PACAF)
26Feb68	1351C	Op, Flt Tng Instr "I" Flt, 3617 Plt Tng Sq, Craig AFB, Ala. (ATC)
26Feb68	1351C	Op Flt Tng Instr "I" Flt, 3617 Plt Tng Sq, Craig AFB, Ala. (ATC)
3 Mar68	1351C	TDY, T38 Pilot Instructor Training, Tyndall AFB Fl, 3617 Plt Tng Sq, Craig AFB, Ala (ATC)
24May68	A1351C	Op Flt Tng Instr "I" Flt, 3617 Flt Tng Sq, Craig AFB, Ala (ATC)
7Jun68	1355C	Op Flt Tng Instr "L" Flt, Craig AFB, Ala (ATC)
14Aug68	1355C	Sq Flt Tng Instr "L" Flt, 3615 Plt Tng Sq, Craig AFB, Ala (ATC)
68Aug14	1355C	Sq Flt Tng Instr "L" Flt WSI 457, 3615 Flt Tng Sq, Craig AFB, Ala (ATC)
70Jun24	1355C	Sq Asst Flt Comdr "L" Flt WSI 457, 3615 Flt Tng Sq, Craig AFB, Ala (ATC)
~~71Jan05~~	~~1355C~~	~~TDY, SOS Class 71-A, 3800 AB Wg, Maxwell AFB, Ala (ATC)~~
71Jan05	1355C	TDY, SOS Class 71-A, Maxwell AFB, 3615 Plt Tng Sq, Craig AFB, Ala (ATC)
71Apr18	1355C	Sq Asst Flt Condr "L" Flt WSI 457, 3615 Flt Tng Sq, Craig AFB, Ala (ATC)
~~[illegible]~~	~~[illegible]~~	~~WO CHIEF FLT TRNG WSI 457, 3615 Flt Tng Sq, Craig AFB, ALA (ATC)~~ "CONTINUED ON ATTACHED SHEET"

COMBAT REPORT	REMARKS
127 Cmbt missions, 260 Cmbt Hrs, F-4D, May67-Jan68, Vietnam, 100 out of Cntry missions as defined in AIMAJCOM msg 421/66// VN Air Offensive, PH II 67Mar-68Mar//(AFP 900-2)	Previous Service Nos: AF19642235// AO3147171// [redacted]

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                                  NAME:

  *** C U R R E N T   P O S I T I O N   D A T A ***
                                                                   *** E D U C A T I O N   D A T A ***

DT START PRES POSN  04 SEP 83
CURR POSN:   GM-0801 -15
CURR POSN TITLE: SUPERVISORY SYSTEMS ENGINEERING MANAGER                       HIGH
SUPV LEVEL:  1 FIRST LEVEL SUPERVISOR                            ACAD LEVEL:  BACH DEGREE
POSN LOC:    J POSNS AT DIVSN-PROD OR SYST ACQSTN                ACAD DISCIP:  A¿ROSP-AERONAUT-ASTRONAUT EN
MAJCOM:      SYS                                                 EDUC SPEC:
GSA GEOLOC:  OHIO                                                CREDIT HRS:  0019
SON:         WRI-PATTERSON AFB OH
                                                                 CREDIT TYPE: SEMESTER HOURS
                                                                 SCHOOL TYPE: COLLEGE OR UNIVERSITY
                                                                 MAJOR/MINOR: MAJ
SKILL GEN:   DE2 RSCH & DEV SYSTEMS MANAGEMENT                   ACAD LEV YR: 58

SKILL 1:     BLB GENERAL ENGINEER                                TOTAL CREDIT HRS:        142
SHRED:           NONE                                            TYPE TOTAL CREDIT HRS:   1
SUB SHRED:       NONE                                            ACAD LEVEL AT ENTRY:     BACH DEGREE
PERCENT:     50

SKILL 2:     CCC AEROSPACE ENGINEER
SHRED:       FLV FLIGHT VEHICLES
SUB SHRED:   WWR FIXED WING
PERCENT:     25

SKILL 3:     AKM OFFICER/ADMINISTRATOR
SHRED:       TMT TECHNICAL MANAGEMENT
SUB SHRED:       NONE

                                  *** E X P E R I E N C E   H I S T O R Y ***

  DT START   DT LEFT    PAY    OCC     CIV     CONUS     SPL      APT    FED    CMD   WORK    BASIS      TOTAL     TOTAL
    POSN      POSN      PLAN  SERIES   GRADE   OS AREA   PRGM ID  TYPE   AGCY         SCHED   PER ACT   DET MOS    MO EXP

   801228    830903     GM    0801     15      US                 1A     AF     SYS   F                 00000      03220

  SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

  SKILL 1:   BLB GENERAL ENGINEER                        SK 1 MOS EXP: 01610
  SHRED:         NONE                                    SKILL 1 PCT:  50
  SUB SHRED:     NONE

  SKILL 2:   CCC AEROSPACE ENGINEER                      SK 2 MOS EXP: 01610
  SHRED:     FLV FLIGHT VEHICLES                         SKILL 2 PCT:  50
  SUB SHRED: WWR FIXED WING

  SKILL 3:       NONE                                    DUTY LOC:             WR PATT/SYS ONLY
  SHRED:         NONE                                    POSN LOC INDIV:  J    POSNS AT DIVSN-PROD OR SYST ACQSTN
  SUB SHRED:     NONE                                    TNG PROG ID:          NOT APPLICABLE
                                                         CAREER PROG DESIG:
  SUP LEVEL:   MANAGER                                   CAREER PROG ID:

  EXP TYPE:    FED CIVIL SVC
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PREPARED  03 JAN 85                 *** C I V I L I A N   C A R E E R   B R I E F ***              FILE DATE:  02 JAN 85
FOR:    OHDPC0005187                                    OPTION 1                                  OFFICE:  SYS/DPC

                                         *** E X P E R I E N C E   H I S T O R Y ***

DT START    DT LEFT    PAY    OCC      CIV     CONUS      SPL       APT    FED    CMD   WORK    BASIS      TOTAL     TOTAL
  POSN       POSN      PLAN   SERIES   GRADE   OS AREA    PRGM ID   TYPE   AGCY         SCHED   PER ACT    DET MOS   MO EXP

 801116     801227     GS     0801     14      US                   1A     AF     SYS   F                  00000     00137

SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:    BLB GENERAL ENGINEER                                SK 1 MOS EXP: 00069
SHRED:          NONE                                            SKILL 1 PCT:  50
SUB SHRED:      NONE

SKILL 2:    CCC AEROSPACE ENGINEER                              SK 2 MOS EXP: 00069
SHRED:      FLV FLIGHT VEHICLES                                 SKILL 2 PCT:  50
SUB SHRED:      NONE

SKILL 3:        NONE                                            DUTY LOC:               WR PATT/SYS ONLY
SHRED:          NONE                                            POSN LOC INDIV:   J     POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED:      NONE                                            TNG PROG ID:            NOT APPLICABLE
                                                                CAREER PROG DESIG:
SUP LEVEL:    SECOND LEVEL SUPERVISOR                           CAREER PROG ID:

EXP TYPE:     FED CIVIL SVC
                                         *** E X P E R I E N C E   H I S T O R Y ***

DT START    DT LEFT    PAY    OCC      CIV     CONUS      SPL       APT    FED    CMD   WORK    BASIS      TOTAL     TOTAL
  POSN       POSN      PLAN   SERIES   GRADE   OS AREA    PRGM ID   TYPE   AGCY         SCHED   PER ACT    DET MOS   MO EXP

 760104     801115     GS     0801     14      US                   1A     AF     SYS   F                  00000     05837

SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:    BLB GENERAL ENGINEER                                SK 1 MOS EXP: 02919
SHRED:          NONE                                            SKILL 1 PCT:  50
SUB SHRED:      NONE

SKILL 2:    CCC AEROSPACE ENGINEER                              SK 2 MOS EXP: 02919
SHRED:      FLV FLIGHT VEHICLES                                 SKILL 2 PCT:  50
SUB SHRED:  1MJ V-STOL/STOL

SKILL 3:        NONE                                            DUTY LOC:               WR PATT/SYS ONLY
SHRED:          NONE                                            POSN LOC INDIV:   J     POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED:      NONE                                            TNG PROG ID:            NOT APPLICABLE
                                                                CAREER PROG DESIG:
SUP LEVEL:    MANAGER                                           CAREER PROG ID:

EXP TYPE:     FED CIVIL SVC

PCN: SPC21A                              (FOR OFFICIAL USE ONLY)                            PAGE 06 OF BRIEF 0002
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PREPARED  03 JAN 85                  *** CIVILIAN  CAREER  BRIEF ***                     FILE DATE:  02 JAN 85
FOR:    OHDPC0005187                             OPTION 1                                OFFICE:  SYS/DPC

                                          *** EXPERIENCE  HISTORY ***

DT START   DT LEFT    PAY   OCC     CIV    CONUS     SPL       APT   FED   CMD  WORK   BASIS     TOTAL    TOTAL
  POSN      POSN      PLAN  SERIES  GRADE  OS AREA   PRGM ID   TYPE  AGCY       SCHED  PER ACT   DET MOS  MO EXP
 720528    760103     GS    0801    14     US                  1A    AF    SYS  F                00000    04320
SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:   BLB GENERAL ENGINEER                      SK 1 MOS EXP: 02160
SHRED:         NONE                                  SKILL 1 PCT:  50
SUB SHRED:     NONE

SKILL 2:   CCC AEROSPACE ENGINEER                    SK 2 MOS EXP: 02160
SHRED:     FLV FLIGHT VEHICLES                       SKILL 2 PCT:  50
SUB SHRED: 1MK ROTARY WING

SKILL 3:       NONE                                  DUTY LOC:
SHRED:         NONE                                  POSN LOC INDIV:  J  POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED:     NONE                                  TNG PROG ID:        NOT APPLICABLE
                                                     CAREER PROG DESIG:
SUP LEVEL:  SUPERVISOR (CSRA)                        CAREER PROG ID:

EXP TYPE:   FED CIVIL SVC

                                          *** EXPERIENCE  HISTORY ***

DT START   DT LEFT    PAY   OCC     CIV    CONUS     SPL       APT   FED   CMD  WORK   BASIS     TOTAL    TOTAL
  POSN      POSN      PLAN  SERIES  GRADE  OS AREA   PRGM ID   TYPE  AGCY       SCHED  PER ACT   DET MOS  MO EXP
 720514    720527     GS    0801    14     US                  1A    AF    SYS  F                00000    00043
SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:   BLB GENERAL ENGINEER                      SK 1 MOS EXP: 00022
SHRED:         NONE                                  SKILL 1 PCT:  50
SUB SHRED:     NONE

SKILL 2:   CCC AEROSPACE ENGINEER                    SK 2 MOS EXP: 00022
SHRED:     FLV FLIGHT VEHICLES                       SKILL 2 PCT:  50
SUB SHRED: 1MK ROTARY WING

SKILL 3:       NONE                                  DUTY LOC:           WR PATT/SYS ONLY
SHRED:         NONE                                  POSN LOC INDIV:  J  POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED:     NONE                                  TNG PROG ID:        NOT APPLICABLE
                                                     CAREER PROG DESIG:
SUP LEVEL:  SUPERVISOR (CSRA)                        CAREER PROG ID:

EXP TYPE:   FED CIVIL SVC

PCN: SPC21A                          (FOR OFFICIAL USE ONLY)                          PAGE 07 OF BRIEF 0002
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                                  *** C I V I L I A N   C A R E E R   B R I E F ***              FILE DATE:  02 JAN 85
PREPARED: 03 JAN 85                              OPTION 1                                     OFFICE:  SYS/DPC
FOR:    OHDPC0005187

                                         *** E X P E R I E N C E   H I S T O R Y ***

DT START   DT LEFT   PAY   OCC     CIV     CONUS     SPL       APT   FED   CMD   WORK    BASIS     TOTAL     TOTAL
  POSN      POSN     PLAN  SERIES  GRADE   OS AREA   PRGM ID   TYPE  AGCY        SCHED   PER ACT   DET MOS   MO EXP

 710808    720514    GS    0801    14       US                 1A    AF    SYS   F                 00000     00920

SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:     BLB GENERAL ENGINEER                        SK 1 MOS EXP: 00460
SHRED:           NONE                                    SKILL 1 PCT:  50
SUB SHRED:       NONE

SKILL 2:     CCC AEROSPACE ENGINEER                      SK 2 MOS EXP: 00460
SHRED:       FLV FLIGHT VEHICLES                         SKILL 2 PCT:  50
SUB SHRED:   1MK ROTARY WING
                                                         DUTY LOC:              WR PATT/SYS ONLY
SKILL 3:         NONE                                    POSN LOC INDIV:   J    POSNS AT DIVSN-PROD OR SYST ACQSTN
SHRED:           NONE                                    TNG PROG ID:           NOT APPLICABLE
SUB SHRED:       NONE                                    CAREER PROG DESIG:
                                                         CAREER PROG ID:
SUP LEVEL:   MANAGEMENT OFFICIAL (CS

EXP TYPE:    FED CIVIL SVC
                                         *** E X P E R I E N C E   H I S T O R Y ***

DT START   DT LEFT   PAY   OCC     CIV     CONUS     SPL       APT   FED   CMD   WORK    BASIS     TOTAL     TOTAL
  POSN      POSN     PLAN  SERIES  GRADE   OS AREA   PRGM ID   TYPE  AGCY        SCHED   PER ACT   DET MOS   MO EXP

 681201    710807    GS    0801    13       US                 1A    AF    SYS   F                 00000     03220

SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:     BLB GENERAL ENGINEER                        SK 1 MOS EXP: 01610
SHRED:           NONE                                    SKILL 1 PCT:  50
SUB SHRED:       NONE

SKILL 2:     CCC AEROSPACE ENGINEER                      SK 2 MOS EXP: 01610
SHRED:       FLV FLIGHT VEHICLES                         SKILL 2 PCT:  50
SUB SHRED:   1MK ROTARY WING
                                                         DUTY LOC:              WR PATT/SYS ONLY
SKILL 3:         NONE                                    POSN LOC INDIV:   J    POSNS AT DIVSN-PROD OR SYST ACQSTN
SHRED:           NONE                                    TNG PROG ID:           NOT APPLICABLE
SUB SHRED:       NONE                                    CAREER PROG DESIG:
                                                         CAREER PROG ID:
SUP LEVEL:   MANAGEMENT OFFICIAL (CS

EXP TYPE:    FED CIVIL SVC

*******END OF EXPERIENCE HISTORY*******          (FOR OFFICIAL USE ONLY)                         PAGE 08 OF BRIEF 0002
PCN: SPC21A
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                         NAME                          GRADE: LTC



            *** ACADEMIC DATA ***                      *** PROFESSIONAL MILITARY EDUC ***      *** PROFESSIONAL SPECIALTY COURSES ***
LEVEL
MAS                     SPECIALTY/SCHOOL      YEAR    SCHOOL        METHOD OBTAINED      YR    CODE  COURSE                              YR
       9GYY             PUBLIC ADMINISTRAT     76   AC&STAFF       SEM                  76     1 AFG CCR TRAINING SAC KC135 77       78
BAC                     BALL STATE U IN             SQ OFF SCH     COR                  74     2 FLA CENTRAL MISSION TNG INST        74
       1AYY             BUS ADM & MGT                                                          3 FRR BASIC SURVIVAL TNG              74
                        AUBURN U      AL                                                       4 FUT UPT 1/4101/3701/39 372          68
                                                                                               5                                     00
                                                                                               6

                                           *** DUTY AND PERFORMANCE HISTORY ***
 EFF DATE
 OF DUTY    DAFSC  DUTY TITLE                           JOINT/DPT MAJ  ORGANIZATION          CMD                                   CLOSE  NO
                                                           ID     ID   NO  KIND              LVL  LOCATION                 GR  DATE   MO

 11 JUL 83 Y1435Y KC 135 KC 10 TANKER DEV OFCR                    SAC 0000 STRATEGIC AIR     CMSA WRIGHT PATTE OHIO        LTC MAY84  11 1D
 01 MAY 83 Y1431Y KC 135 KC 10 TANKER DEV OFCR                    SAC 0000 STRATEGIC AIR     CMSA WRIGHT PATTE OHIO        LTC MAY83  10 1D
 06 AUG 82 Y1431Y KC-10 TANKER DEV OFCR                           SAC 0000 STRATEGIC AIR     CMSA WRIGHT PATTE OHIO
 28 JAN 81   1495Z CHIEF FLIGHT OPNS DLA                 DSA      ELM 0000 AFELM DLA/DCSPRU  DD/J BIRMINGHAM    ALA        MAJ MAY82  12 1D
                                                                                                                           MAJ MAY81  12 1D
 02 JUL 80   1491Z CHIEF FLIGHT OPNS DLA                 DSA      ELM 0000 AFELM DLA/DLAO    DD/J BIRMINGHAM    ALA
 06 AUG 79 F1065C ACFT SYS FLT EVAL OFF KC135 DLA DSA              ELM 0000 AFELM DLA/DCASR   DD/J BIRMINGHAM    ALA        MAJ MAY80  10 1D
 18 AUG 76 M1065C KC135 PILOT EVALUATOR                           SAC 0001 COMBAT EVALUATION CMHQ BARKSDALE     LA         MAJ JUN79  07 1D
                                                                                                                           CPT OCT78  12 1D
 01 APR 76 M1065C SPEC ASST TO DEP COMD FOR MAINT                                                                          CPT OCT77  15 2B
 07 NOV 75 M1065C WG CH KC-EC STDN CR IP EVAL                     SAC 0305 AIR REFUELING HVY WING GRISSOM       IND        CPT JUL76  12 2B
 15 JUL 75 M1065C CH KC-EC 135 STDN CR IP EVAL                    SAC 0305 AIR REFUELING HVY WING GRISSOM       IND
 01 DEC 74 M1065C KC 135 IP EVAL STDN CCR CMDR                    SAC 0070 AIR REFUELING HVY WING GRISSOM       IND
                                                                  SAC 0070 AIR REFUELING HVY WING GRISSOM       IND        CPT JUL75  08 1B
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                       NAME:                                   GRADE: LTC




•••• ACADEMIC DATA ••••    ••• PROFESSIONAL MILITARY EDUC ••    ••• PROFESSIONAL SPECIALTY COURSES •••
LVL  SPECIALTY / SCHOOL       COURSE          METHOD       YR    1ST EU3 UPT T/410T/370T/38-372       69
DOC  DIGITAL ENGINEERIN    AC&STAFF     COR                82    2ND
     U NEW MEXICO NM 73    SO OFF SCH   COR                73    3RD
MAS  ELEC ENG.WAVES/PAR                                          4TH
     NC ST U NC            NONE                                  5TH

DUTY ••••••••••••••• DUTY HISTORY •••••••••••••• MAJ ORGANIZATION (CURRENT & HISTORY)• CMD ••••••••••••••••••••••••
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND                 TYPE LVL  LOCATION
10DEC82  2685  OPS RESCH SYS ANAL              ELM PENT 0000 AFELM OFC SEC DEF    DOD  DD/J PENTAGON                VIR
20JUL80  2681  OPS RESCH SYS ANAL              ELM 0000 0000 AFELM OFC SEC DEF    DOD  DD/J PENTAGON                VIR

15JUN79 T2825  DIRECTOR CORE COURSE PROGRAMS   ACD 0000 0000 USAF ACADEMY         CMD  AFA  USAF ACADEMY            COL
10JUL78 A0900  COMMANDER CADET SQUADRON 34     ACD 0000 0000 USAF ACADEMY         CMD  AFA  USAF ACADEMY            COL
01JAN78 T2825  ASSOC PROF OF ELEC ENGR         ACD 0000 0000 USAF ACADEMY         CMD  AFA  USAF ACADEMY            COL
01JAN76 T2825  ASST PROF ELEC ENG              ACD 0000 0000 USAF ACADEMY         CMD  AFA  USAF ACADEMY            COL
03MAR75 T2821A INSTR OF ELEC ENGRG             ACD 0000 0000 USAF ACADEMY         CMD  CMHQ USAF ACADEMY            COL
24JUN73  2811  DEV PLNS ANAL OFF               AUN RD11 0000 AF INST OF TECH      INST HAF  USAF ACADEMY            VIR

14FEB73  2825A ELEC ENGR GEN                   SYS 0000 0000 AIR FORCE WEAPONS    LAB  FDAG                         N MEX
13MAR72  2825A ELCT ENGR                       SYS U000 0000 AIR FORCE WEAPONS    LAB  FDAG                         N MEX
13OCT71  2825A ELCT ENGR                       SYS 0000 0000 AIR FORCE WEAPONS    LAB  FDAG                         N MEX
13APR71  2821A ELCT ENGR                       SYS 0000 0000 AIR FORCE WEAPONS    LAB  FDAG                         N MEX
27AUG70  2821A ELCT ENGR                       SYS 0000 0000 AIR FORCE WEAPONS    LAB  FDAG                         N MEX
27FEB70  2821A ELCT ENGR                       SYS 0000 0000 AIR FORCE WEAPONS    LAB  FDAG                         N MEX
08OCT69  2821A ELCT ENGR,GEN                   SYS 0000 0000 AIR FORCE WEAPONS    LAB  FDAG                         N MEX
07MAY69  2821A ELCT ENGR                       SYS 0000 0000 AIR FORCE WEAPONS    LAB  FDAG                         N MEX
07APR68   0006 STU UNGRAD PLT TNG              ATC 0000 0000 STUDENT              SQ   STU                          ARZ
20MAY67 C6621A STU GRAD ELCT ENGRG-NC ST U     AUN 0000 0000                      COLL STU                          N CAR
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                                           NAME:                       GRADE: LTC




            *** ACADEMIC DATA ***               *** PROFESSIONAL MILITARY EDUC ***    *** PROFESSIONAL SPECIALTY COURSES ***

LEVEL               SPECIALTY/SCHOOL     YEAR    SCHOOL     METHOD OBTAINED     YR   CODE  COURSE                          YR
MAS                 ELECTRICAL ENGINEE    69   AC&STAFF     RES                 78   1 QMP SURVEIL OF COST SCHDL CNTL SYS  78
      4IYY          SAN JOSE S U CA            SQ OFF SCH   RES                 73   2 AAA ACADEMIC INSTRUCTOR COURSE-40   74
BAC                 ELECTRICAL ENGINEE
      4IYY          WASH ST U WA


                                               *** DUTY AND PERFORMANCE HISTORY ***

EFF DATE                                         JOINT/DPT MAJ  ORGANIZATION          CMD                         CLOSE NO
OF DUTY   DAFSC -DUTY TITLE                          ID    ID   NO  KIND              LVL  LOCATION           GR  DATE  MO
   JUL 83        PROG MGR
14 AUG 80  0940  ASST PROF OF AEROSP STUDIES               ATC 0000 AIR FORCE ROTC    UNIT AUBURN       ALA   LTC JUL82 04 1D
                                                                                                              MAJ MAR82 11 1D
                                                                                                              MAJ MAR81 07 1D
10 FEB 80  2716  CH BUS MGT DIV TIPI SPO                   SYS 0000 ELECTRONIC SYSTEMS INTM HANSCOM     MASS  MAJ MAR80 12 1D
15 JAN 79  2711  CHIEF BUSINESS MANAGEMENT DIV             SYS 0000                   INTM HANSCOM      MASS  MAJ MAR79 07 1D
10 JUL 78  2711  CH BUDGET AND PROGRAM ANALYSIS            SYS 0000                   NAF  HANSCOM      MASS
03 JAN 78  0003  STU AIR COMD AND STAFF COLLEGE ACSC      AUN 0000 AIR CMD/STAFF     STU  MAXWELL      ALA   MAJ JUN78 05 TC
18 SEP 76  7521  MANAGEMENT INSTRUCTOR          SOS       AUN 0000 SQUADRON OFFICER  NAF  MAXWELL      ALA   MAJ OCT77 10 FC
                                                                                                              CPT JAN77 04 FB
12 JUN 76  0940  SECTION COMMANDER              SOS       AUN 0000 SQUADRON OFFICER  NAF  MAXWELL      ALA
30 AUG 74  0940  SECTION COMDR                  SOS       AUN 0000 SQUADRON OFFICER  ADIV MAXWELL      ALA   CPT JUN76 06 FB
                                                                                                              CPT OCT75 05 2B
                                                                                                              CPT MAY75 05 9A
01 DEC 73  2811  SYSTEMS MGR                    AFTAC     HQC 1035 TECH OPERATIONS   NAF  PATRICK      FLA   CPT MAY74 06 9A

532429881HU010HDPD0008817
PCN SPO30
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                                                  *** UNCLAS - FOR OFFICIAL USE ONLY ***
PREPARED: 84 NOV 09                               ATLAS VARIABLE INQUIRIES - STANDARD RUN # 125                EFFECTIVE DATE: 84 NOV 03
************NAME*********** **[redacted]* DAFSC- EFF-DT ***********DUTY-TITLE***** *** LEVL DET- NUMB KND TY *****LOCATION**** CMD RTG
                       [redacted]   2991  840810 ALCM SPD                         NAF  0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D
-----------SERVICE-DATA-----------
PLSD  640603 BRD 640603 DOS 940630    0066  830627 VICE COMMANDER  320 BMW        W/B  0000 0320 BHV WG MATHER            SAC 1D

GRADE COL 810326 PERM-PROM DEF O      0036  820622 CH AIRLIFT AND TRAINING DIV    HAF  RD01 0000 HAF HQ PENTAGON          HAF 1D
COMP REG                PERM-GRADE COL
TAFMSD 640603 TAFCSD 640603 AGE 42    2716  810628 CH TRNG SECTION                HAF  RU01 0000 HAF HQ PENTAGON          HAF 1D

DAS 840723 ADSCD 850722       RS 10   0036  800609 ASST DEP COMDR FOR OPERATIONS  W/B  0000 0063 MAL WG NORTON            MAC 1D

ODSD 690801 STRD 690801 DEROS        A1045L 790326 COMMANDER 53 MAS               UNIT 0000 0053 MAL SQ NORTON            MAC 1D
NR-LONG 00  NR-SHRT 1
                                     N1045L 781122 OPERATIONS OFFICER             SQ - 0000 0014 MAL SQ NORTON            MAC 1D
-----------EDUCATION-----------
MAS  BUS ADM & MGT                    0003  771215 STU AIR WAR COLLEGE            STU  0000 0000 WAR CL MAXWELL           AUN TC
AUBURN U MONTAL NONE-N/A      78
                                      0003  770801 STU AIR WAR COLLEGE            STU  0000 0000 WAR CL MAXWELL           AUN TC
MAS  SYSTEMS ANALYSIS
AFIT WPAFB   OH AFIT SCH OF           2711  760620 BGM 34C PROGRAM MGR            NAF  0000 0000 AOD DV WR PATT/SYS ONLY  SYS 2B

----------- PME-----------            2911  751106 MULTI MISSION SYS PROG MGR     NAF  0000 0000 AOD DV WR PATT/SYS ONLY  SYS FB
AIR WAR COL   RES              78
ICAF          COR              74     2944  740614 BGM 34 C PROGRAM MANAGER       NAF  0000 0000 AOD DV WR PATT/SYS ONLY  SYS FB
AC&STAFF      COR              73
SQ OFF SCH    RES              70     2941  730614 OPERATIONS RESEARCH ANALYST    NAF  0000 0000 AOD DV WR PATT/SYS ONLY  SYS 1B

-----------FLYING-----------         V2691A 721231 STU GRAD SYSTEMS ANALYSIS AFIT STU  0000 0000 ITE IN YYYY              AUN 9A
RATING CMD PILOT STAT
AIRCRAFT YR-HOUR  TOTAL-HOURS        V2691A 720613 STU GRAD SYS ANLYS             STU  0000 0000 ITE IN YYYY              AUN 9A
C-141     81 2801   04247
T-39/CT   75 0246 ASD 641022         V2691A 710609 STU GRAD SYS ANLYS             STU  0000 0000 ITE IN YYYY              AUN TA
DC-130    74 0084 OSD 640603
RF-4C     69 0404                     1045L 700806 PLT TRNSP C 141                SQ   0000 0000 MAL SQ YYYY              MAC TA
C-124     67 0429 RTN-RTD
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                                              *** UNCLAS - FOR OFFICIAL USE ONLY ***
PREPARED: 84 NOV 09                          ATLAS VARIABLE INQUIRIES - STANDARD RUN # 125                    EFFECTIVE DATE: 84 NOV 03
***********NAME********** **[redacted]** DAFSC- EFF-DT ***********DUTY-TITLE********** LEVL DET- NUMB KND TY *****LOCATION**** CMD RTG
                           [redacted]   0002  840810 SYS PGM DIR AIM-120 AMRAAM      NAF  0000 0000 ADV DV EGLIN              SYS 1D
-----------SERVICE-DATA-----
PLSD  580718 BRD 580718 DOS 880731       2996  820802 SPD, AGM-65 SPO                INTC 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D

GRADE COL 770830 PERM-PROM DEF 0         2996  811020 ASST DEP FOR DEV PLANNING      INTC 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D
COMP REG                  PERM-GRADE COL
TAFMSD 580718 TAFCSD 580718 AGE 49       2816  800917 ASST DIRECTOR OF LABORATORIES  CMHQ 0000 0000 SYS CM ANDREWS            SYS 1D

DAS 840630 ADSCD 850629        RS 10     2816  790709 ASST DIRECTOR SCIENCE AND TECH CMHQ 0000 0000 SYS CM ANDREWS            SYS 1D

ODSD 690805 STRD 690805 DEROS            0003  780814 STUDENT ICAF                   STU  ICAF 0000 ZUG JO FT MCNAIR          ELM 1D
NR-LONG 00  NR-SHRT 1
                                         2816  771101 CH AVIONICS WEAPONS DIVISION   CMHQ 0000 0000 SYS CM ANDREWS            SYS TD
-----------EDUCATION----------
MAS  MET ENG,PHY MET,ENG PHY ME          2816  761031 CHIEF FLIGHT VEHICLES DIVISION CMHQ 0000 0000 SYS CM ANDREWS            SYS 1C
OHIO ST U     OH AFIT CIV        68
                                         2716  760702 CH FLIGHT VEHICLES DIV         CMHQ 0000 0000 SYS CM ANDREWS            SYS FB
BAC  CHEMICAL ENGINEERING
W VA UNIV     WV NONE-N/A                2816  730702 STF OFF AERO MATER DIV         HAF  RDPJ 0000 HAF HQ PENTAGON           HAF 1B

----------- PME-----------               2711  721231 ASST DIV CH MAT SPT DIV        FDAG 0000 0000 MTL LB YYYY               SYS 2B
ICAF          RES/COR            79
AC&STAFF      SEM                73      2716  720601 ASST DIV CH MAT SPT DIV        FDAG 0000 0000 MTL LB YYYY               SYS 9A
SQ OFF SCH    COR                62
NONE          NONE                       2898C 710601 DEV ENGR SPECL                 FDAG 0000 0000 MTL LB YYYY               SYS 9A

-----------FLYING----------              2891C 700731 DEV ENG                        FDAG 0000 0000 MTL LB YYYY               SYS 9A
RATING CMD PILOT STAT
AIRCRAFT YR-HOUR  TOTAL-HOURS             2891C 690822 DEV ENGR SPECL MAT ENGR        FDAG 0000 0000 MTL LB YYYY               SYS 9A
C-131     74 0120   04016
T-29      73 0479  ASD 580827             1416  690101 MSN LCH CON OFF                NAF  0000 0000 AFH AF YYYY               PAF 9A
C-47      67 0250  DSD 570603
B-52D     66 2892                         1411  680731 MISSION LAUNCH CON OFF         NAF  0000 0000 AFH AF YYYY               PAF 9
NONE      00 0000  RTN-RTD
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                                NAME:                       GRADE: MG

•••• ACADEMIC DATA ••••   ••• PROFESSIONAL MILITARY EDUC ••   ••• PROFESSIONAL SPECIALTY COURSES •••
LVL  SPECIALTY / SCHOOL      COURSE          METHOD       YR   1ST SY7 SEE CO-820 AFM-300-4            76
MAS  BUS ADM/MGT,ENGINE   ICAF           COR              75   2ND VBF JUNGLE SURVIVAL TNG SEA         66
     GEO WASH U DC    71  ARMY CMD GSC   RES              65   3RD AJ3 COUNTERINSURGENCY COURSE        65
MAS  A-N ENG,AERODYNAMI   SQ O/F SCH     RES              59   4TH EU1 UPT T/370T/33/33/T/38-385       55
     AFIT WPAFB    OH     NONE                                 5TH

DUTY ••••••••••••••• DUTY HISTORY ••••••••••••••• MAJ ORGANIZATION (CURRENT & HISTORY)• CMD ••••••••••••••••••••••••••
EFF-DT   DAFSC  DUTY TITLE (CURRENT & HISTORY)    ID  DET  NBR  KIND                  TYPE LVL  LOCATION
13NOV81  0002   DEP FRO 618                       SYS 6000 0000 AERO SYSTEMS          DIV  INIC WR PATT/SYS      OHIO
27JUL79  0002   COMDT DEF SYS MGT COLLEGE         ELM 0000 0000 AFELM DSMC            DOD  DD/J FT BELVOIR       VIR
08JAN79  0002   DEPUTY FOR COMM AND INFO SYS      SYS 0000 0000                       DIV  NAF  L.G. HANSCOM     MASS
30APR78  0002   DEP FOR CONTROL AND COMM SYS      SYS 0000 0000                       DIV  NAF  L.G. HANSCOM     MASS
19JUN77  0002   STU STANFORD EXECUTIVE PROG CRS   SYS 0000 0000                       DIV  NA   WR PATT/SYS      OHIO
03MAY76  0002   DEP CMD DEP FOR ENGINEERING       SYS 0000 0000                       DIV  NAF  WR PATT/SYS      OHIO
01FEB75  0002   DEP FOR F16                       SYS 0000 0000                       DIV  NAF  WR PATT/SYS      OHIO
01OCT74  2926   DEPUTY FOR AIR COMBAT FIGHTER     SYS 6000 0000                       DIV  NAF  WR PATT/SYS      OHIO
10MAY73  2926   SPD PROTOTYPE                     SYS 0000 0000                       DIV  NAF  WR PATT/SYS      OHIO
31DEC72  2921   ASST DIR PROTOTYPE PRGM OFFICE    SYS 0000 0000                       DIV  NAF                   OHIO
30JUL72  2921   ASST DIR PROTOTYPE PRGM OFC       SYS 0000 0000                       DIV  NAF                   OHIO
29AUG71  2921   ASST DIR PROTOTYPE PRGM OFC       SYS 0000 0000                       DIV  NAF                   OHIO
30JUL70 G2716   AEROSP ASST NASC STF              HAF 0000 0000 U S AIR FORCE         HQ   HAF                   DIC
29SEP69  2711   AEROSP ASST,NASC STF              HAF 0000 0000 U S AIR FORCE         HQ   HAF                   DIC
30AUG68  2816   FOREIGN DEV OFF                   HAF 0000 0000 U S AIR FORCE         HQ   HAF                   DIC
29OCT67  2816   FOREIGN DEV OFF                   HAF 0000 0000 U S AIR FORCE         HQ   HAF                   DIC
29APR67  1411   OP STF OFF                        PAF 0000 0000 AIR FORCE             AF   NAF                   VIETS
28NOV66  1115E  FLT COMDR F105                    PAF 0000 0000 TACTICAL FIGHTER      SQ   SQ                    THAIL
14SEP66  9999   STU OPERATIONS TNG CRS 111506E    ADC 0000 0000 AEROSP DEF            CMD  STU                   KAN
29JUL65  2911   MAC SYS PROGRAM STAFF OFF         ADC 0000 0000 AEROSP DEF            CMD                        COL
15AUG64  0000   STU US ARMY COMD STAFF COLLEGE    AUN 0000 0000 SUPPORT               COLL STU                   NAUSA
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1 LAST NAME	FIRST NAME	MI	AFSN	GRADE	PLACE OF BIRTH	DATE OF LAST CED	2
[redacted]	[redacted]		[redacted]	73 NOV 14 COLONEL	[redacted], [redacted]	15	

8 CHRONOLOGICAL LISTING OF SERVICE

FROM	DAFSC	BRIEF DESCRIPTION OF DUTY - ORGANIZATION AND STATION
4Jun54-15Sep56,		Comm, 2ndLt, Prin Dy Stu Off, Pilot (EAD)
		CONTINUOUS SERVICE FROM 4 June 1954
16Sep56	1324E	Pilot, Reconnaissance, 15TACRECONRON, Kadena, AB, Okinawa(PACAF)
20Feb58	1325C	Pilot, Reconnaissance, 15 TACRECONRON, Kadena, AB, Okinawa (PACAF)
6May58	P1135Q	3576 Plt Tng Sq, Vance AFB, Oklahoma (TDY 3615 Fly Tng Gp, Craig AFB, Alabama)
31Jul58	P1135Q	Flt Instr, 3576 Plt Tng Sq, Vance AFB, Oklahoma (ATC)
5Aug58	P1115Q	Flt Instr, 3576 Plt Tng Sq, Vance AFB, Oklahoma (ATC)
14Sep59	P1115C	(SOS, Maxwell AFB, Alabama) 3576 Plt Tng Sq, Vance AFB, Oklahoma (ATC)
28Dec59	P1115C	Flt Instr, 3575 Plt Tng Sq, Vance AFB, Oklahoma (ATC)
16May60	P1115Q	Flt Instr, GpStandbd, Hq 3575 Plt Tng Gp, Vance AFB Oklahoma (ATC)
27Feb61	1355A	Stu, GradAeroEngr, IT, Wright Patterson AFB, Ohio (AU)
20Oct62	2811	Aero Engr, Hypersonic Mech Lab, ARL, OAR, Det # 3, w/dy sta W-PAFB, Ohio (AU)
8Oct63	2816	Aero Engr, Hypersonic Mech Lab, Aero Mech Lab, Wright Patterson AFB, Ohio (AU)
21Aug64	2855C	Stu USACGSC, 3825 Spt Gp Det 4, Ft Leavenworth Kansas (AU)
2Jul65	2911	Sys Prog Staff Officer, Adv Req Br Aero Sys Div, hq ADC, Ent AFB, Colorado (ADC)
19Jun66	1111E	Stu, Crse #111506E (RTU), McConnell AFB, Kans (TAC)
21Nov66	1115E	Pilot Tac Ftr, 469 Tac Ftr Sq, Korat RTAFB, Thailand (PACAF)
3Dec66	1115E	Flt Commander, 469 Tac Ftr Sq, Korat RTAFB, Thailand (PACAF)
25Apr67	1411	Operations Staff Officer, Hq 7th AF, Tan Son Nhut AB, Vietnam (PACAF)
6Oct67	2816	ForeignDevOff,AsstforForeignDev,DCS/R&D (HqUSAF)
3Feb69	2816	Foreign Development Officer, Asst for International R&D Programs, DCS/R&D (HqUSAF)
15Oct69	2711	NAF, Aerosp Asst, NASC Stf, Exec Ofc, of the President, CenConGp (HqUSAF)
27Aug70	G2716	NAF, Aerosp Asst, NasC Stf, Exec Ofc, of the President, CenConGp (HqUSAF)
71Aug13	2911	NAF, Ch Cargo Programs Div, Hq Aero Sys Div, Wright-Patterson AFB, Ohio (AFSC)
71Sep07	2916	NAF Assistant Director Prototype Prog Office, Hq Aero Sys Div, Wright-Patterson AFB, Ohio (AFSC)
7Sep71	2921	NAF, Asst Director Prototype Prog Office, Hq ASD, WPAFB, Ohio (AFSC)

CONTINUED ON ATTACHED SHEET

9 COMBAT REPORT	10 REMARKS
56 Combat Missions,105 Combat Hrs, aircraft F105D,SEA//45 Combat Missions out-of-country as defined in ALPACOM Msg 401/66//Vietnam Air Off Cmpgn,Ph I,29Jun66-8Mar67(DSS); Vietnam Air Off Cmpgn,Ph II 9Mar67-31Mar68 (DSS)//	Ref Item 2 A: Title of thesis for MS "A Preliminary Investigation of the Use of an Aerodynamic Spike for Control of a Hemisphere-Cylinder at Hypersonic Speeds"//USNA time creditable for award of AFSSA//AFLET 54-1, 9Nov72, [redacted] //Addl AFSCs 2816, 2855B

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                    NAME:                                    GRADE: COL

**** ACADEMIC DATA ****    *** PROFESSIONAL MILITARY EDUC **    *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL      COURSE          METHOD      YR     1ST OGT SEE CO-820 AFM-300-4              79
DOC  ASTRO-PHYSICAL AST    AIR WAR COL   SEM             79     2ND EBF MGMT,LABORATORY R AND D-40        77
     U ALASKA      AK 72   SQ OFF SCH    RES             64     3RD BNM SEE CO-820 AFM-300-4              67
MAS  METEOROLOGY                                                4TH
     U COLORADO    CO      NONE                                 5TH

DUTY ************** DUTY HISTORY ************** MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ************************
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)   ID  DET  NBR  KIND                   TYPE LVL  LOCATION
23JAN82  2996  DIRECTOR OTH B PROGRAM           SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTC L.G. HANSCOM      MASS
15SEP81  2711  DEP DIR NASS AND SPD OTH RADAR   SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTM L.G. HANSCOM      MASS
01JAN81  2616  DIR OF TEST OTHER B RADAR        SYS AVOO 0000 ELECTRONIC SYSTEMS DIV  INTM                   MNE
27JAN80  2616  TEST DIRECTOR                    SYS AVOO 0000 ELECTRONIC SYSTEMS DIV  UNIT                   MNE
01JUL79  2616  CH IONOSPHERIC DYNAMICS BR       SYS 0000 0000 AF GEOPHYSICS LAB  LAB  ADIV L.G. HANSCOM      MASS
01APR78  2616  CH IONOSP DYNAMICS BRANCH        SYS 0000 0000 AF GEOPHYSICS LAB  LAB  INTM L.G. HANSCOM      MASS

04NOV76  2616  CHIEF IONOSP DYNAMICS            SYS 0000 0000 AF GEOPHYSICS LAB  LAB  ADIV L.G. HANSCOM      MASS
01MAY74 C2546  CH OF SESS PROJECTS              MAC 0000 0000 AF GLOBAL WEA      CENT WING OFFUTT            NEB
16MAY73 C2546  CH OF SESS PROJECT               MAC 0000 0000 AF GLOBAL WEA      CENT NA   OFFUTT            NEB
31DEC72 C2546  CH OF SESS PROJECT               MAC 0000 0000 AF GLOBAL WEA      CENT                        NEB
15JUN72 E2546  CEN CH SESS PROJ                 MAC 0000 0000 AF GLOBAL WEA      CENT                        NEB
15SEP71  2524  STU PHD PHYSICAL ASTRONOMY U AK  AUN 0000 0000 AF INST OF TECH    COLL STU                    ALS
05SEP70  2524  STU PHD PHYS ASTRONOMY U ALASKA  AUN 0000 0000 AF INST OF TECH    COLL STU                    ALS
04SEP69  2524  STU PHD PHYS ASTRMY U-ALASKA     AUN 0000 0000 AF INST OF TECH    COLL STU                    ALS
28JUN68 E2546  SCI SVC OFF                      MAC 0000 0000 WEATHER            DET  DTCH                   COL
28AUG67 E2546  SOLAR ACTIVITY FORECASTRT        MAC 0000 0000 WEATHER            DET  MISC                   COL
28AUG66  2541  SOLAR ACTIVITY FORECASTER        MAC 0000 0000 WEATHER            DET  MISC                   COL
09JUN66  9999  STU GRAD METEOROLOGY U COLORADO  AUN 0000 0000                    COLL STU                    OHIO
08JUN65  9999  STU.GRAD METEOROLOGY,U COLORADO  AUN 0000 0000                    INST STU                    OHIO
16NOV64  2524  WEATHER OFF                      MAC 0000 0000 WEATHER            DET  DTCH                   NAUSA
15JUL64  2524  WEATHER OFF                      MAC 0000 0000 WEATHER            DET  DTCH                   NAUSA
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LAST NAME	FIRST NAME	MI	AFSN	GRADE	PLACE OF BIRTH	DATE OF LAST OER
[redacted]			[redacted]	72DEC(?) -G (?)	[redacted]	73[illegible] 115 2

CHRONOLOGICAL LISTING OF SERVICE

EDOA	DAFSC	BRIEF DESCRIPTION OF DUTY – ORGANIZATION AND STATION
1Jun60 -	5Sep60,	Comm, 2nd Lt, Prin D[illegible] Hone (R[illegible])
		Continuous Service From 6 September 1960
6Sep60	2521	TDY, [illegible] Proc, [illegible] Gp, Andrews AFB, Wash D.C., Hq AFIT, W-PAFB, Ohio (AU)
19Sep60	2521	Stu, Msc Astro, MIT, Cambridge Mass, AFIT, W-PAFB, Ohio (AU)
10Jul61	2524	Duty Fcstr, Det 15, 1 Wea Wg, Osan AB, Korea (MATS)
[illegible]Sep62	2524	Wea Off, Det 4, 12 Wea Sq, McGuire AFB, New Jersey (MATS)
19Nov62	2524	TDY, Fcst Duty, Andrews AFB, Maryland
16Dec62	2524	Wea Off, Det 4, 12 Wea Sq, McGuire AFB, New Jersey (MATS)
[illegible]Apr64	2524	TDY, Sq Off Sch, Maxwell AFB, Ala (AU)
[illegible]Jun64	2524	Wea Off, Det 4, 12 Wea Sq, McGuire AFB, New Jersey (764) (MATS)
11Jun65	2511	Stu, G. Astro, Univ of Colo, Boulder, Colo, AFIT, W-PAFB, Ohio (AU)
~~[illegible]Sep64~~	~~2541~~	~~Solar Activity Fcstr (764) OL 10, Det 7, 4 Wea Wg, Ent AFB, Colo (MAC)~~
14Sep66	2541	Solar Activity Fcstr (764) OL 10, Det 7, 4 Wea Wg, Ent AFB, Colo (MAC)
20Nov67	E2546	Solar Acty Fcstr (3[illegible]), OL 10, Det 7, 4 Wea Wg, Ent AFB, Co (MAC)
29Apr68	E2546	Scientific Services Off (3[illegible]), Det 7, 4 Wea Wg, Ent AFB, Colo (MAC)
69Sep 5	2524	Stu, PhD Physical Astron, Univ of Alaska, P/W College, Alaska, AFIT, WPAFB, OH, (AU)
72JUN16	C2546	CEN, CHIEF OF SESS PROJECT, AF GWC, (MAC), Offutt AFB, NE (MAC)
72Nov28	RC2546	CEN, CHIEF OF SESS PROJECT, AF GWC, MAC, OFFUTT AFB NE (MAC)

[illegible]

COMBAT REPORT	REMARKS
	Previous Service Numbers: A03100124// [redacted]

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                              NAME:                                 GRADE: COL



•••• ACADEMIC DATA ••••     ••• PROFESSIONAL MILITARY EDUC ••    ••• PROFESSIONAL SPECIALTY COURSES •••
LVL  SPECIALTY / SCHOOL        COURSE           METHOD        YR    1ST EJ1 ORT MSL CCR SAC MINUTEMAN 1-67
MAS  A-S ENG,GUIDED MIS     ICAF          RES/COR             80    2ND ECW SEE CO-820 AFM-300-4        62
     AFIT WPAFB   OH 66     AC&STAFF      RES                 72    3RD AJ3 COUNTERINSURGENCY COURSE    00
BAC  PHYSICS                SQ OFF SCH    RES                 67    4TH EHC MIL TNG OFFICER BSC PERCOM  00
     SAM HUST TEA TX        NONE                                    5TH

DUTY •••••••••••••• DUTY HISTORY ••••••••••••• MAJ ORGANIZATION (CURRENT & HISTORY)• CMD •••••••••••••••••••••••••
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND                TYPE LVL  LOCATION
15AUG83  2991  DEP FOR DEF MET SATELL SYS      SYS 0000 0000 SPACE DIVISION      DIV  INTC LOS ANGELES          CAL
18OCT82  0071  DEPUTY DIRECTOR OF SPACE        HAF XOS1 0000 U S AIR FORCE       HQ   HAF  PENTAGON             VIR
19JUN81  2716  CH SPACE LAUNCH AND CONTROL DIV HAF RDS1 0000 U S AIR FORCE       HQ   HAF  PENTAGON             VIR

30JUL80  2711  PEM SPACE SHUTTLE               HAF RDS1 0000 U S AIR FORCE       HQ   HAF  PENTAGON             VIR
13AUG79  0003  STUDENT ICAF                    ELM ICAF 0000 AFELM NDU           JCS  STU  FT MCNAIR            DIC
05JUN78  2816  DIR OF ENGINEERING              SYS 0000 0000 SPACE/MISSILE SYS   ORG  NAF  LOS ANGELES          CAL
18NOV76  2816  DIR OF OPERATIONS               SYS 0000 0000 SPACE/MISSILE SYS   ORG  NAF  LOS ANGELES          CAL

16JUN75  2816  DIR OF GROUND SYSTEMS           SYS 0000 0000 SPACE/MISSILE SYS   ORG  NAF  LOS ANGELES          CAL


01MAY73  2825A CHIEF LOGISTICS DIVISION        SAC 0000 4000 SAT OPS GP          GP   GP   OFFUTT               NEB

31DEC72  2825A CH ELECTRONIC MAINT BR          SAC 0000 0000 SAT OPS GP          GP   GP                        NEB
15JUN72  2825A CH ELCT MAINT BR                SAC 0000 0000 SAT OPS GP          GP   GP                        NEB
02AUG71  2825A STU RESD CRS AIR COMD STF COLL  AUN 0000 0000 AIR CMD/STAFF       COLL STU                       ALA
30SEP70  2825A CH INSTMN OP BR                 SAC 0000 0000 STRAT AEROSPACE     DIV  ADIV                      CAL
02JUN70  2825A DIR INSTMN                      SAC 0000 0000 STRAT AEROSPACE     DIV  ADIV                      CAL
16JUN69  2825A DIR.INSTMM                      SAC 0000 0000 STRAT AEROSPACE     DIV  ADIV                      CAL
16SEP68  2821A DIR.INSTRUMENTATION             SAC 0000 0000 STRAT AEROSPACE     DIV  ADIV                      CAL
15JUN68  2821A IV ELCT ENGR                    SAC 0000 0000 STRAT AEROSPACE     DIV                            CAL
05AUG67  2821A ELCT ENGR                       SAC 0000 0000 SUPPORT             GP   GP                        NEB
04MAY67  2841D STU SQ OFF SCHOOL               SAC 0000 0000 SUPPORT             GP   STU                       NEB
07JAN67  2841D ASTR ENGR                       SAC 0000 0000 SUPPORT             GP   GP                        NEB
06JUL66  2841D ASTRONAUTICAL ENGR              SAC 0000 0000 SUPPORT             GP   GP                        NEB
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NAME:

AF Form 11 not available. The following represents prior duty history:

Date	DAFSC	Duty
6Nov62	1821B	HQ OTSUSAF, Lackland AFB, Tex (ATC)
18Dec62	1821B	Msl Cmbt Crw Comdr, 12th StratMslSq, ,almstrom AFB, Mont (SAC)
25Jan63	1821B	Dep Msl Cmbt Crw Comdr, 12th StratMslSq, Malmstrom AFB, Mont (SAC)
1Mar63	1825G	Dep Msl Cmbt Crw Comdr, 12th StratMslSq, Malmstrom AFB, Mont (SAC)
1Oct66	1825G	Msl Cmbt Crw Cmbt 490th StratMslSq, Malmstrom AFB, Mont (SAC)

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                                            *** UNCLAS - FOR OFFICIAL USE ONLY ***
PREPARED: 84 NOV 09                        ATLAS VARIABLE INQUIRIES - STANDARD RUN # 125                    EFFECTIVE DATE: 84 NOV 03
************NAME*********** ***SSAN** DAFSC- EFF-DT ***********DUTY-TITLE********** LEVL DET- NUMB KND TY *****LOCATION**** CMD RTG
                                360328258  2996  840822 DEP FOR DEF SATELLITE COMM SYS  NAF  0000 0000 SMU DV LOS ANGELES       SYS 1D
-----------SERVICE-DATA-----------
PLSD  581021 BRD 581021 DOS 881031         2996  830728 SPO DIR OF CRUISE MISSILES      INTC 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D

GRADE COL 790724 PERM-PROM DEF 0           2996  800816 SPD ALCM                        INTC 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D
COMP REG                 PERM-GRADE COL
TAFMSD 581021 TAFCSD 581021 AGE 47         2996  790528 DEPUTY.DIRECTOR ALCM            DO/J 0000 0000 ZZT DO ARLINGTON         SYS 1D

DAS 840822 ADSCD 850821       RS 10        2991  780316 DEPUTY DIRECTOR ALCM            NAF  0002 0000 AOD DV ARLINGTON         SYS 1D

ODSD 620120 STRD 581021 DEROS              2716  770818 DEPDIR ALCM DIR                 NAF  0000 0000 AOD DV WR PATT/SYS ONLY  SYS 1D
NR-LONG 01  NR-SHRT 0
                                           2716  750101 CH HALE SYS GP                  NAF  0000 0000 AOD DV WR PATT/SYS ONLY  SYS 1C
-----------EDUCATION-----------
BAC+ AERONAUTICAL ENGINEERING              2911  740729 PROGRAM MGT CRS                 STU  0000 0000 AOD DV FT BELVOIR        SYS FB
AFIT WPAFB   OH AFIT SCH OF   63
                                           2916  740401 CH RECCE SENSORS GP             NAF  0000 0000 AOD DV WR PATT/SYS ONLY  SYS 1B
NONE NONE
               NONE                        2916  740126 DRONE WEAPONS SYS DEV MGR       NAF  0000 0000 AOD DV WR PATT/SYS ONLY  SYS 2B

----------- PME-----------                 2916  730701 DRONE WPN SYS DEV MGR           NAF  0000 0000 AOD DV YYYY              SYS FB
ICAF          COR                 71
SQ OFF SCH    RES                 65      E2916  730401 MGR REENTRY VEH TECH            CMHQ 0000 0000 SYS CM YYYY              SYS TA
NONE          NONE
NONE          NONE                         2911  721231 SYS PROG STF OFF                CMHQ 0000 0000 SYS CM YYYY              SYS 9A

-----------FLYING-----------               2916  720401 SYS PRGM STF OFF                CMHQ 0000 0000 SYS CM YYYY              SYS 9A
RATING NO RATING STAT
AIRCRAFT YR-HOUR  TOTAL-HOURS               2911  710731 SYS PRGM STF OFF                CMHQ 0000 0000 SYS CM YYYY              SYS 9A
NONE
NONE               ASD                     2816  700831 INSP                            CMHQ 0000 0000 SYS CM YYYY              SYS 9
NONE               OSD
NONE                                       2816  690531 INSP                            CMHQ 0000 0000 SYS CM YYYY              SYS 9
NONE               RTN-RTD
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                                                *** UNCLAS - FOR OFFICIAL USE ONLY ***
PREPARED: 84 NOV 09                          ATLAS VARIABLE INQUIRIES - STANDARD RUN # 125                 EFFECTIVE DATE: 84 NOV 03
************NAME*********** ***SSAN** DAFSC- EFF-DT ***********DUTY-TITLE********** LEVL DET- NUMB KND TY *****LOCATION**** CMD RTG
                              520343242  2996  830201 DEP FOR DEFENSE SUPPORT SYS     NAF  0000 0000 SMU DV LOS ANGELES       SYS 1D
------------SERVICE-DATA-----------
PLSD  580831 BRD 580831 DOS 880831       2996  810517 SYSTEM PROGRAM MANAGER          NAF  0000 0000 SMU DV LOS ANGELES       SYS 1D

GRADE COL 790719 PERM-PROM DEF O         2716  791021 COMMANDER 6595 SATELLITE TST GP GP   0000 6595 STG GP VANDENBERG AFB    SYS 1D
COMP REG               PERM-GRADE COL
TAFMSD 580831 TAFCSD 580831 AGE 49       2716  790517 COMMANDER 6595 SPACE TEST GP    GP   0000 6595 STS GP VANDENBERG AFB    SYS 1D

DAS 810517 ADSCD 820516       RS 10      2816  781101 DEPUTY DIRECTOR OF ENGINEERING  NAF  0000 0000 SMS OR LOS ANGELES       SYS 1D

ODSD 661115 STRD 661115 DEROS            2816  760812 CH SIMPLIFIED PROCESS STN DIV   NAF  0000 0000 SMS OR LOS ANGELES       SYS 1D
NR-LONG 00  NR-SHRT 1
                                         2816  750505 CH SIMPLIFIED PROCESSING STATIO NAF  0000 0000 SMS OR LOS ANGELES       SYS 1D
-----------EDUCATION-----------
MAS  ELECTRONIC COMPUTATION              2816  750113 CH SOFTWARE DEVELOPMENT         NAF  0000 0000 SMS OR LOS ANGELES       SYS 1C
U WYOMING     WY AFIT CIV       63
                                         2816  740301 CH SYS ANLYS BR                 NAF  0000 0000 SMS OR LOS ANGELES       SYS 1B
BAC  ELECTRICAL ENGINEERING
U WYOMING     WY NONE-N/A                2811  720603 CH SYS ANLYS BR                 NAF  0000 0000 SMS OR YYYY              SYS TB

----------- PME-----------               2825A 710802 STU RESD CRS AIR COMD STF COLL  STU  0000 0000 CAS CL YYYY              AUN 2B
AC&STAFF       RES              72
SQ OFF SCH     COR              70       2825A 710203 MGR AGENA SATELL VEH SYS ENGR   GP   0000 0000 STS GP YYYY              SYS 2B
NONE           NONE
NONE           NONE                      2825A 700630 MGR,AGENA SATELLITE VEH SYS ENG GP   0000 0000 STS GP YYYY              SYS 9A

-----------FLYING-----------             2825A 690201 PROJ ENGR                       WING 0000 0000 AET WG YYYY              SYS 9A
RATING CMD PILOT STAT SUS
AIRCRAFT YR-HOUR  TOTAL-HOURS             2825A 680815 PROJ ENGR,SLV FIVE              WING 0000 0000 AOT WG YYYY              SYS TA
C-131     74 0804    03710
T-29      71 1813  ASD 581007            2825A 671119 PROJ ENGR                       WING 0000 0000 AET WG YYYY              SYS 9A
O-1       66 0702  OSD 580602
U-3       63 0136                        2825A 661119 PROJ OFF                        WING 0000 0000 AET WG YYYY              SYS 9
NONE      00 0000  RTN-RTD
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NAME: GRADE: BG

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**** ACADEMIC DATA ****   *** PROFESSIONAL MILITARY EDUC **   *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL      COURSE          METHOD      YR   1ST PLT USAF CMDRS SEMINAR          83
MAS  SYSTEMS MANAGEMENT   AIR WAR COL  RES               74   2ND SSD SEE CO-820 AFM-300-4        82
     U SOUTHN CAL CA 72   SQ OFF SCH   RES               64   3RD PUQ SEE CO-820 AFM-300-4 DSMC   79
MAS  ASTRONAUTICAL ENGI                                       4TH XJA JUNGLE SURV SCH PACAF PJSS  68
     AFIT WPAFB   OH      NONE                                5TH V8D WATER SURVIVAL TNG          68

DUTY ************** DUTY HISTORY ***,********** MAJ ORGANIZATION (CUPRENT & HISTORY)* CMD ************************
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)  IO  DET  NBR  KIND                TYPE LVL  LOCATION
01DEC83  0002  DEPUTY COMMANDER FOR AWACS      SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTC L.G. HANSCOM      MASS
16MAR83  0002  DEPUTY FOR AWACS                SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTC L.G. HANSCOM      MASS
27SEP82  0002  COMMANDER AFWAL                 SYS 0000 0000 AF WRIGHT AERO LAB LAB  INTM WR PATT/SYS       OHIO
30MAY81  0002  DEP FOR REC ELECT WARFARE SYS   SYS 0000 0000 AERO SYSTEMS       DIV  INTM WR PATT/SYS       OHIO
21MAY80  2996  ASST DEPUTY COMM INFO SYSTEMS   SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTM L.G. HANSCOM      MASS
10FEB80  2996  DIR CMBT INFO SYS               SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTM L.G. HANSCOM      MASS
15APR79  2996  DIR CMBT INFO SYS               SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTM L.G. HANSCOM      MASS
05SEP78  2991  DIR OF IRAN AIR DEF SYS         SYS 0000 0000 ELECTRONIC SYSTEMS DIV  NAF  L.G. HANSCOM      MASS
31MAY78  2991  DEP SYS PROG DIR FOR NEW PROG   SYS 0000 0000 ELECTRONIC SYSTEMS DIV  NAF  L.G. HANSCOM      MASS
16AUG76  2716  MIL ASST TO CHIEF SCIENTIST     HAF RD11 0000 U S AIR FORCE      HQ   HAF  PENTAGON          VIR
25JUN74  2716  MILITARY STF ASST               HAF OSD1 0000 U S AIR FORCE      HQ   HAF  PENTAGON          VIR
24JUN74  2711  MILITARY STAFF ASSISTANT        AUN 8241 0000 U S AIR FORCE      HQ   DD/J MAXWELL           ALA
01AUG73 E2716  STU AIR WAR COLLEGE             AUN 0000 0000 AIR WAR COLLEGE    COLL STU  MAXWELL           ALA
31DEC72 E2711  FIELD TEST FORCE DIRECTOR       SYS 0000 0000 AF SATELLITE CONT  FAC  WING                   CAL
15JUL72 E2711  FIELD TEST FORCE DIR            SYS 0000 0000 AF SATELLITE CONT  DET  WING                   CAL
10JUL71 E2711  FLT TEST FR DIR                 SYS 0000 0000 AF SATELLITE CONT  DET  WING                   CAL
13MAR71 E2711  FLD TEST FR DIR                 SYS 0000 0000 AF SATELLITE CONT  FAC  WING                   CAL
13MAR70 E2711  FIELD TEST FORCE DIR            SYS 0000 0000 AF SATELLITE CONT  DET  WING                   CAL
12JUL69  2841A FLD TEST FORCE DIR              SYS 0000 0000 AF SATELLITE CONT  DET  WING                   CAL
12AUG68  1456  ASST ALO                        PAF 0000 0000 TACTICAL AIR SUPP  SQ   SQ                     VIETS
12SEP67  1111F STU REPLACEMENT TNG CRS         TAC 0000 0000 TACTICAL FIGHTER   SQ   STU                    CAL
14JUN66  2811  STU GRAD ASTRONAUTICS           AUN 0000 0000                    INST STU                    OHIO
13JUN65  9999  STU.GRADUATE ASTRONAUTICS       AUN 0000 0000                    INST STU                    OHIO
16JAN65  1235C COPILOT,SELECT B52G             SAC 0000 0000                    SQ   SQ                     NAUSA
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                    NAME:                                GRADE: COL




**** ACADEMIC DATA ****    *** PROFESSIONAL MILITARY EDUC **    *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL       COURSE          METHOD       YR    1ST PUQ SEE CO-820 AFM-300-4           83
MAS  PUBLIC ADMINISTRAT    AIR WAR COL  RES                81    2ND PLT USAF CMDRS SEMINAR             83
     AUBURN U MONT   81    ICAF         COR                75    3RD N83 PROGRAM MGT CRS OF DEF MGT S77
MAS  SYSTEMS MANAGEMENT    ARMD FOR SC  RES                74    4TH ABM AERO RESEARCH PLT CRSE-365  71
     U SOUTHN CAL CA       SQ OFF SCH   RES                67    5TH XJA JUNGLE SURV SCH PACAF PJSS  69

DUTY ************** DUTY HISTORY ************* MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ***********************
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND                TYPE LVL  LOCATION
19MAY83  2996  DEP DIR B1B                     SYS 0000 0000 AERO SYSTEMS        DIV  INTC WR PATT/SYS          OHIO
21JUN82  0066  VICE COMMANDER 6510 TEST WING   SYS 0000 6510 TEST                WING W/B  EDWARDS              CAL
01JUN81  2991  DEP CH SYSTEMS LIAISON DIVISION HAF SAF1 0000 U S AIR FORCE       HQ   DD/J PENTAGON             VIR
05AUG80  0003  STU AIR WAR COLLEGE             ATC 0000 0000 AIR WAR COLLEGE     COLL STU  MAXWELL              ALA
01AUG79  2716  ALCM PROJ OFF                   HAF RDQ1 0000 U S AIR FORCE       HQ   HAF  PENTAGON             VIR
02AUG77  2716  BOMBER PENETRATION PROJ OFF     HAF RDQ1 0000 U S AIR FORCE       HQ   HAF  PENTAGON             VIR

23JAN77 F2716  STU PROGRAM MANAGEMENT CRSE     SYS AE00 0000                     DIV  STU  EDWARDS              CAL
01MAY76 F2716  DEP DIR DT AND E DEP FOR B1     SYS AE00 0000                     DIV  CMHQ EDWARDS              CAL
01JAN75 F2916  B1 TEST MANAGER                 SYS AE00 0000                     DIV  NAF  EDWARDS              CAL

31JUL74  2911  TST MGR DIR TSTDEP B 1          SYS 1500 0000                     DIV  ADIV EDWARDS              CAL
21FEB74  2865D TST MGR DIR TST-DEP B-1         SYS AE00 0000                     DIV  NAF  EDWARDS              CAL
22SEP73  2865D STU ARMED FORCES STAFF COLLEGE      0000 0000 USAF SPECIAL ACTY   SQ   STU                       VIR
18AUG73  2865D STU REG CRS ARMED FORCES STF CO HQC 0000 0000 USAF SPECIAL ACTY   DET  NA                        VIR
24DEC72  2865D CH STAB CON SEC OP BR           SYS 0000 0000 USAF TEST PILOT SC SCH  SQ                        CAL
23JAN72  2865D CH SCHED SEC OP BR              SYS 0000 0000 SCHOOL              SQ   SQ                        CAL
23FEB71  2861A STU USAF AEROSP RSCH PLT        SYS 0000 0000 SCHOOL              SQ   STU                       CAL
23APR70  1325B PLT,EB66                        PAF 0000 0000 TAC ELECT WARFARE   SQ   SQ                        THAIL
24SEP69  1325B PLT EB66                        PAF 0000 0000 TAC ELECT WARFARE   SQ   SQ                        THAIL
08JUL69  1321B STU ELCT WRFR-ELCT RECON CRSE E PAF 0000 0000 TACTICAL FIGHTER    WING STU                       S CAR
17SEP68 E1325G PILOT RC135                     SAC 0000 0000 STRATEGIC RECON     SQ   SQ                        NEB
25FEB68 E1325G COPLT SNR RC 135 STRAT RECON AI SAC 0000 0000 STRATEGIC RECON     SQ   SQ                        NEB
25AUG67 E1325G COPLT SNR,RC135C                SAC 0000 0000 STRATEGIC RECON     SQ   SQ                        NEB
24APR67 E1325G COPILOT,RC135                   SAC 0000 0000                     SQ   SQ                        NEB
14JAN67 E1325G STU SOS                         SAC 0000 0000 STRATEGIC RECON     SQ   STU                       ALA
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LAST NAME	FIRST NAME	MI	AFSN	GRADE	PLACE OF BIRTH	DATE OF LAST OER	
			[redacted]	[redacted] 74F-EB25 MAT	[redacted]	74 JAN 18	2

8 CHRONOLOGICAL LISTING OF SERVICE

EDCSA	DAFSC	BRIEF DESCRIPTION OF DUTY—ORGANIZATION AND STATION
		CONTINUOUS SERVICE FROM: 6 June 1962
6Jun62	0006	StuOff, PltTrainee, 3561 StuSq, WebbAFB, Texas (ATC)
1Oct63	1061C	TDY, AdvSurvlTng, SteadAFB, Nev, CCTS, Castle AFB, CA, 914 AREFS, Blytheville AFB, Ark (SAC)
27Feb64	1061C	Co-Plt, KC-135, w/ cmbtCrew, 914 AREFS, Blytheville AFB, Ark (SAC)
23Mar64	1061C	Co-Plt, KC-135, w/ stand Bd Crew, 914 AREFS, Blytheville AFB, Ark (SAC)
19May64	1065C	Co-Plt, w/cmbtcrew, KC-135, 914 AREFS, Blytheville AFB, Ark (SAC)
6Oct64	1065C	Co-Plt, KC-135, w/ Stnd Bd Crew, 914 AREFS, Blytheville AFB, Ark, (SAC)
		UNIT REDESIGNATED 97th AREFS (H)
21Feb66	1065C	Co-Plt w/ Wing Stdn Crew, 97 AREFS, Blytheville AFB, Ark (SAC)
11Jul66	1065C	Co-Plt w/ cmbtcrew, 97 AREFS, Blytheville AFB, Ark (SAC)
15Sep66	E1325G	Co-Pilot, 343rd Strat Recon Sq, OffuttAFB, Nebr (SAC)
15Sep68	E1325G	Pilot (Alternate Crew Comdr), 343rd SRSq, OffuttAFB, Nebr (SAC)
69Oct09	1325B	Recon Plt, 3566, 41 Tac Elect War Sq Takhli RTAFB Thailand (PACAF)
70Oct 26.	2865D	Stu CL 71A Aerosp Rsch plt Sch, 6510 Sch Sq, Edwards AFB, Ca, (AFSC)
71Dec24	2865D	SQ Scheduling Off Ops Div, 6510 School Sq, Edwards AFB, CA (AFSC)
72Mar01	2865D	SQ CHIEF, Scheduling Section, Operations Branch, 6510 School Sq, Edwards AFB, CA (AFSC)
72Dec26	2865D	Sq, Instr Stab & Cntl Sec Ops Br, 6510 School Sq, Edwards AFB, CA (AFSC)
73May15	2865D	SQ INSTR STAB & CNTL SEC OPS BR, USAFTPS, EDWARDS AFB, CA (AFSC)
~~73Aug13~~	~~2865D~~	~~Stu Armed Forces Staff College, Det 4, 1135 USAF Spec Acty Sq, Norfolk, Va (HQ COMD)~~
73May29	2865D	Sq Chief, Stab and Control Sec Ops Br, USAFTPS, Edwards AFB, Ca (AFSC)
73Aug13	2865D	Stu Armed Forces Staff College, Det 4, 1135 USAF Spec Acty Sq, Norfolk, Va (HQ COMD)
74Feb21	2865D	NAF, Test Mgr, Dir, Test & Dep-B-1, DET AEDO, Aero Systems Div, Edwards AFB. CA (AFSC)

9. COMBAT REPORT	10. REMARKS PREVIOUS SERVICE NUMBERS:
10CmbtMissions, 126CmbtHrs, KC-135, VS, Apr65-May65//7-Out-of-CountryMsns//1 Out-of-Country CmbtMsn, 10CmbtHrs, KC135, 3Nov68, No.VS./// 109CmbtMission, 355.1Hrs, EB-66C/E, 17Oct69-3Sep70, SOutheast Asia//Vietnam Summer-Fall Camp, Sep-Oct69(BSS)//Vietnam Winter-Spring Camp, Nov69-Apr70(BSS)//Sanctuary Counter Offensive May-Jun70(BSS)//Southwest Monsoon Camp, Jul-Sep70(BSS)//	[redacted] A-6///Item#3Continued: A/17 AFSC [illegible] Senior Pilot//

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                                        NAME:                    GRADE: BG




**** ACADEMIC DATA ****    *** PROFESSIONAL MILITARY EDUC **    *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL       COURSE          METHOD       YR   1ST NB3 PROGRAM MGT CRS OF DEF MGT S73
MAS  SYSTEMS MANAGEMENT    ICAF          RES                77   2ND ABM AERO RESEARCH PLT CRSE-365  67
     U SOUTHN CAL CA 70    ACBSTAFF      CCR                71   3RD ERR BASIC SURVIVAL TNG          61
BAC  MIL SCIENCE           SO OFF SCH    COR                64   4TH EU3 UPT T/410T/370T/38-372      61
     USAF ACD CO           NONE                                  5TH

DUTY *************** DUTY HISTORY ************** MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ***************************
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND                TYPE LVL  LOCATION
15AUG83  0002  DEPUTY FOR F16                  SYS 0000 0000 AERO SYSTEMS        DIV  W/B  WR PATT/SYS          OHIO
30APR83  0002  DEP FOR TAC SYS ASD             SYS 0000 0000 AERO SYSTEMS        DIV  INTC WR PATT/SYS          OHIO
24JUL81  0066  COMMANDER                       SYS 0000 4950 TEST                WING W/B  WR PATT/SYS          OHIO
01JUL80  2996  SYS PROGRAM DIR F15 SPO         SYS 0000 0000 AERO SYSTEMS        DIV  INTM WR PATT/SYS          OHIC
10FEB80  2996  DEP SYSTEM PROGRAM DIR F15      SYS 0000 0000 AERO SYSTEMS        DIV  INTM WR PATT/SYS          OHIO
01APR79  2996  DEP SYSTEM PROGRAM DIR F15      SYS 0000 0000                     DIV  INTM WR PATT/SYS          OHIO
23NOV77  2716  F 16 PEM                        HAF RDP1 0000 U S AIR FORCE       HQ   HAF  PENTAGON             VIR
01JUL77  2716  DEP CHIEF AERONAUTICAL SYS DIV  HAF RDP1 0000 U S AIR FORCE       HQ   HAF  PENTAGON             VIR
11AUG76  0003  STU ICAF                        ELM NDUI 0000 AFELM SCHOOLS       JCS  STU  FT MCNAIR            DIC
09APR75 F2916  DIR A10 DEV TEST DIR            SYS 0000 0000                     DIV  NAF  WR PATT/SYS          OHIO
20FEB74 F2916  TEST AND DEVELOPMENT DEP A10    SYS 0000 0000                     DIV  NAF  WR PATT/SYS          OHIO
29JUL73  2911  DIR TEST AND DEPLOYMENT DEP A10 SYS 0000 0000                     DIV  NA   WR PATT/SYS          OHIO
15JAN73  2911  STU PRGM MGT CRS 73 1           SYS 0000 0000 SUPPORT             SQ   STU                       VIR
14APR72  2865D ASST FOR OFCR MGMT              SYS 0000 0000 SUPPORT             SQ   CMHQ                      MLD
09APR72  0016  ASST SNR OFF MGT                SYS 0000 0000 AF SYSTEMS          CMD  CMHQ                      MLD
15APR71  2865D DEP ASST SNR OFF MGT            SYS 0000 0000 AF SYSTEMS          CMD  CMHQ                      MLD
14JAN71  2865D DEP ASST SNR OFF MGT            ATC 0000 0000 AF SYSTEMS          CMD  CMHQ                      MLD
03JUL70  2865D CH AEROSP RSCH PLT BR           SYS 0000 0000 SCHOOL              SCH  SO                        CAL
01AUG69  2865D CH,AEROSP RSCH PLT BR           SYS 0000 0000 SCHOOL              SO   SO                        CAL
26JUL68  2865D CEN CH,AEROSP RSCH PLT BR       SYS 0000 0000 AF FLIGHT TEST      CENT                           CAL
26JUL67  2865D CEN INSTR EXPERIMENTAL TEST PLT SYS 0000 0000 AF FLIGHT TEST      CENT                           CAL
25JUL66  2861  STU AEROSPACE RESEARCH PILOT    SYS 0000 0000 AF FLIGHT TEST      CENT STU                       CAL
05SEP65  1125D PILOT,FIGHTER INTERCEPTOR,F102  PAF 0000 0000                     SO   SO                        PHILI
16SEP64  1125D PILOT,FIGHTER INTERCEPT,F102    CMC 0000 0000                     SO   SO                        PHILI
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NAME:

AF Form 11 not available. The following represents prior duty history:

Date	DAFSC	Duty
8Aug60	0006	Pilot Trianee, Hq 3302D Plt Tng Gp, (Contr Prim) Spence AB, Ga (ATC)
1Jan61	0006	Stu Off Plt Tng, 3561st Stu Sq, Webb AFB, Texas (ATC)
12Oct61	1115Z	Student, TDY, Comb Survival Tng Crse, Stead AFB, Nevada, Perrin AFB Tex (ATC)
13Nov61	1115Z	Student, Awtg Adv Tng, 3555th Fly Tng Sq, (SUPP), Perrin AFB, Tex (ATC)
21Feb62	1121D	Student Officer, 3555th Fly Tng Sq, (SUPP), Perrin AFB, Tex (ATC)
1Jul62	1121D	Student Officer, 4780th Fly Tng Sq, Perrin AFB Tex (ATC)

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                                                                    *** UNCLAS - FOR OFFICIAL USE ONLY ***
PREPARED  84 NOV 09                                          ATLAS VARIABLE INQUIRIES - STANDARD RUN # 125                   EFFECTIVE DATE  84 NOV 03
*************NAME************ ***SSAN** DAFSC- EFF-DT ***********DUTY-TITLE*********** LEVL DET- NUMB KND TY *****LOCATION**** CMD RTG
                              140321499  2996  830608 DIR TAC PROGRAM INTEGRATION     INTC 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D
------------SERVICE-DATA------------
PLSD  631112 BRD 631112 DOS 931130       2991  830401 SPEC ASST RECON STRIKE EW SYS   INTC 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D

GRADE COL 831001 PERM-PROM DEF 0         2891  820129 DEP DIR RECCE PRGMS             INTC 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D
COMP REG                PERM-GRADE COL
TAFMSD 631112 TAFCSD 631112 AGE 43       2991  820310 SPD TACTICAL RECON SPD          INTM 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D

DAS 841014 ADSCD 851013        RS 10     2716  810601 CHIEF-SPECIAL PROJECTS DIV      INTM 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D

ODSD 730707 STRD 730707 DEROS           ✓2711  800701 SYSTEMS ACQUISTIONS MGR         INTM 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D
NR-LONG 00  NR-SHRT 1
                                         0003  790806 STU AIR WAR COLLEGE             STU  0000 0000 WAR CL MAXWELL           ATC 1D
------------EDUCATION------------
MAS  ELEC ENG,WAVES/PAR SYS              1575Z 780716 OPERATING LOC TEST MGR          INTM AN00 0000 A0D DV EGLIN             SYS FC
AFIT WPAFB   OH AFIT SCH OF   72
                                         0003  760405 STUD ARMED FORCES STAFF COLLEGE STU  AFSC 0000 ZZC JO NORFOLK            OV  1B
BAC  ELECTRICAL ENGINEERING
NJ INST TECH NJ NONE-N/A                 0003  760125 STUD ARMED FORCES STAFF COLLEGE NA   0004 1135 SPA SQ NORFOLK            OV  1B

------------ PME------------             2895J 730808 DEV ENGR SPEC EW ENGR           NAF  0000 0000 A0D DV WR PATT/SYS ONLY  SYS 1B
AIR WAR COL  RES                80
ARMD FOR SC  RES                76       1575J 730330 EWO AC130A                      SQ   0000 0000 SOP SQ YYYY              PAF 9A
SO OFF SCH   RES                68
NONE         NONE                        1575Z 721231 EWO AC130A GUNSHIP              SQ   0000 0000        YYYY              CMC 9A

------------FLYING------------           1575J 720724 EWO AC130A                      SQ   0000 0000 SOP SQ YYYY              PAF 9A
RATING SR NAV     STAT
AIRCRAFT YR-HOUR   TOTAL-HOURS            2821A 710612 STU GRAD ELEC ENGRG             STU  0000 0000 ITE IN YYYY              AUN 9A
AC130H   79 0148    02857
T-29     74 0104   ASD 631117            2821A 700611 STU GRAD ELEC ENGRG             STU  0000 0000 ITE IN YYYY              AUN TA
AC-130A  73 0422   OSD 630604
AC-130E  73 0079                         1575Z 700105 INSTR EWO B52                   SQ   0000 0000 BH  SQ YYYY              SAC T
B-52     70 1757   RTN-RTD
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                              NAME:                    GRADE: COL




**** ACADEMIC DATA ****     *** PROFESSIONAL MILITARY EDUC **    *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL        COURSE          METHOD      YR    1ST ECC SEE CO-820 AFM-300-4          76
MAS  SYSTEMS MANAGEMENT     NKT SCTY MGT COR               79    2ND AJ3 COUNTERINSURGENCY COURSE      63
     U SOUTHN CAL CA 77     SO OFF SCH     RES             63    3RD EJU ORT MSL CCR SAC ATLAS F-40    60
BAC  MIL SCIENCE                                                 4TH 6JW ORT MSL CCR SAC ATLAS E-33    60
     US MIL ACD NY          NONE                                 5TH

DUTY *************** DUTY HISTORY ************** MAJ ORGANIZATION (CURRENT & HISTORY)* CMD *************************
EFF-DT   DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND                TYPE LVL  LOCATION
14JUL83   2996  DEP FOR SPACE NAV SYSTEMS       SYS 0000 0000 SPACE DIVISION      DIV  INTC LOS ANGELES          CAL
01JUN82   2996   DEPUTY FOR EXP LAUNCH VEH      SYS 0000 0000 SPACE DIVISION      DIV  INTC LOS ANGELES          CAL
22SEP81   2996  ASST DEP EXPENDABLE LCH VEH     SYS 0000 0000 SPACE DIVISION      DIV  NAF  LOS ANGELES          CAL
01MAY80   2991  DIR LAUNCH BASE OPS DIR         SYS 0000 0000 SPACE DIVISION      DIV  NAF  LOS ANGELES          CAL
21OCT79   2816  CH LCH BASE OPS DIV             SYS 0000 0000 SPACE DIVISION      DIV  NAF  LOS ANGELES          CAL
18JUL79   2816  CH LCH BASE OPS DIV             SYS 0000 0000 SPACE/MISSILE SYS   ORG  NAF  LOS ANGELES          CAL
17AUG76   0026  COMMANDER                       SYS 0000 6593 INSTRUMENTATION     SO   UNIT KAENA POINT          HAW
21JUL75   2911  EXECUTIVE OFFICER               SYS 0000 0000 AF SATELLITE CONT   FAC  ADIV LOS ANGELES          CAL
29JUL74   2816   ATLAS AGENA LAUNCH OPERATIONS  SYS 0000 6555 AEROSPACE TEST      GP   GP   LOS ANGELES          FLA
23MAR73   2816  CHIEF ATLAS AGENA LAUNCH OPNS   SYS 0000 6555 AEROSPACE TEST      GP   GP   PATRICK              FLA
31DEC72   2816  CH OPERATIONS BRANCH            SYS 0000 0000 AEROSPACE TEST      GP   GP                        FLA
31JUL72   2816  CH OP BR                        SYS 0000 0000 AEROSPACE TEST      GP   GP                        FLA
30AUG71   2816  CH OP BR                        SYS 0000 0000 AEROSPACE TEST      GP   GP                        FLA
30NOV70  E2816  OP ANLYS                        PAF 0000 0200 AIR FORCE           AF   NAF                       VIETS
01DEC69   2916  STF DEV ENGR                    SYS 0000 0000 USAF SPECIAL ACTY   DET  DD/J                      FLA
01AUG69   2811  STF DEV ENGR                    SYS 0000 0000 SPECIAL ACTIVITIES  DET  DD/J                      FLA
31AUG68   2811  STF DEV ENGR                    SYS 0000 0000 USAF SPECIAL ACTY   DET  DD/J                      FLA
11SEP67  2895B  DEV ENGR RANGE CON SEC          SYS 0000 0000 EASTERN SPACE & MS  RNG  MISC                      FLA
11SEP66  2891B  DEVELOPMENT ENGR                SYS 0000 0000 EASTERN SPACE & MS  RNG  ADIV                      FLA
10OCT65  2891B  DEVELOPMENT ENGINEER            SYS 0000 0000 EASTERN SPACE & MS  RNG  ADIV                      FLA
10SEP64   9999  STU.INDUS,MSL RANGE TECH        AUN 0000 0000                     COLL STU                       OHIO
15JAN64  1825B  MSL CCR COMDR,CGM160            SAC 0000 0000 STRATEGIC MISSILE   SO   SO                        NAUSA
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LAST NAME	FIRST NAME	MI	AFSN	GRADE	PLACE OF BIRTH	DATE OF LAST OER	
[redacted]				[redacted] MAJOR 74APR04	[redacted]	73 MAR 15	2

8 CHRONOLOGICAL LISTING OF SERVICE

EDOA	DAFSC	BRIEF DESCRIPTION OF DUTY—ORGANIZATION AND STATION
		CONTINUOUS SERVICE FROM 3 Jun 1959
3Jun59	1821	Launch Control Off, 706 Strat Missile Wg, F E Warren AFB, Wyo (SAC)
10Aug59	1821	Launch Control Off, 564th Strat Missile Sq, F E Warren AFB, Wyo (SAC)
1Mar60	1824	Missile Tng Off, 564th Strat Missile Sq, F E Warren AFB, Wyo (SAC)
12Apr61	1824B	Dep Launch Control Off, 564th Strat Missile Sq, F E Warren AFB, Wyo (SAC)
17Jul61	3124B	Dep Launch Control Off, 564th Strat Missile Sq, F E Warren AFB, Wyo (SAC)
25Apr62	3124B	Dep Missile Combat Crew Comdr, 564th Strat Missile Sq, F E Warren AFB, Wyo (SAC)
9Dec62	3124B	TDY, Sq Off Sch, Maxwell AFB, Ala (SAC)
30Apr63	1825B	Dep Missile Combat Crew Comdr, 564th Strat Missile Sq, F E Warren AFB, Wyo (SAC)
27May63	1825B	Dep Msl Combat Crew Comdr, w/Stand Div, 564 Strat Msl Sq, F E Warren AFB, Wyo (SAC)
22Jan64	1825B	Missile Combat Crew Comdr, 564th Strat Missile Sq, F E Warren AFB, Wyo (SAC)
8Sep64	2811	Stu, Missile Range Tech (EWI) Pan American World Airways, Cocoa Beach, Fla (AFIT) (AU)
8Oct65	2811	(DDA) Staff Dev Engr, Range Control Br, Hq AFETR, Patrick AFB, Fla (AFSC)
1Jun66	2895B	(DDA) Dev Engr, Spec PC Eng, Rnge Con Sec,Hq AFETR, Patrick AFB, Fla AFETR (AFSC)
31Aug68	2811	Staff Dev Engr, Range & Network Div, Det 6, 6590 Spec Act Sq, Patrick AFB, Fla AFETR (AFSC)
69Dec01	2816	Staff Dev Engr, Range & Network Div, Det 6, 6590 Spec Act Sq, Patrick AFB, Fl AFETR (AFSC)
70Sep06	2691A	NAF Opns Analysis Hq 7thAF Tan Son Nhut AB, RVN (PACAF)
70Dec07	E2816	NAF, R&D Staff Officer & Briefer, Hq7AF, Tan Son Nhut AB, RVN (PACAF)
71Sep16	2816	GP, Chief, Operations Br, 6555 Aerospace Test Gp, Patrick AFB, Fla (AFSC)
71Sep16	2816	GP CHIEF, ATLAS AGENA LAUNCH OPERATIONS, 6555 ASTGp, PATRICK AFB FLA (AFSC)

9 COMBAT REPORT	10 REMARKS
	Auth Guided Missile Insignia, SO A-192, Hq 15AF, May 60//

U.S. GOVERNMENT PRINTING OFFICE

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                    NAME:                                   GRADE: LTC




**** ACADEMIC DATA ****   *** PROFESSIONAL MILITARY EDUC **   *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL      COURSE            METHOD     YR   1ST 1Q1 SEE CO-820 AFM-300-4          81
MAS  SYSTEMS MANAGEMENT   ICAF          COR               77   2ND UGJ FINANCIAL MGMT IN WEAPON SYS79
     U SOUTHN CAL CA 74   AC&STAFF      RES               76   3RD MFA MGT TNG PRGM AF SUPVR MGT 1 77
BAC  MECHANICAL ENGINEE   SQ OFF SCH    RES/COR           68   4TH OTT SEE CO-820 AFM 300-4          77
   --U W MADISON  WI      NONE                                 5TH EDB MISSILE OFFICER WS/133A-58   64

DUTY *************** DUTY HISTORY ************** MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ***************************
EF7-DT   DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND                 TYPE LVL  LOCATION
05JUL83   2991  DEP PROGRAM MGR FOR HARM        SYS AA00 0000 HQ ARMAMENT DIV      DIV  INTC ARLINGTON           VIP
01APR83   2716  DEPUTY DIRECTOR STRIKE ARMAMENT SYS SD00 0000 AF SYSTEMS           CMD  CMHQ ANDREWS             MLD
01NOV82   2816  DEPUTY DIRECTOR STRIKE ARMAMENT SYS 0000 0000 AF SYSTEMS           CMD  CMHQ ANDREWS             MLD
01APR80   2816  CHIEF STRIKE SYSTEMS DIVISION   SYS 0000 0000 AF SYSTEMS           CMD  CMHQ ANDREWS             MLD

28JUN79   2816  MANAGER AIM AGM SYSDEV ACQ      SYS 0000 0000 AF SYSTEMS           CMD  CMHQ ANDREWS             MLD
28JUN77   2716  CH  PRODUCT MGT DIV AGM 65 SPO  SYS 0000 0000                      DIV  NAF  WR PATT/SYS         OHIO
01APR77   2721  MISSILE PROJ MGR AGM65 SPO DV   SYS 0000 0000                      DIV  NAF  WR PATT/SYS         OHIO
22JUL76   2721  PROJ MGR AGM65 SPO              SYS 0000 0000                      DIV  NAF  WR PATT/SYS         OHIO
19AUG75   0003  STU AIR COMD AND STAFF COLLEGE  AUN 0000 0000 AIR CMD/STAFF        COLL STU  MAXWELL             ALA
01JAN75   2811  FLIGHT VEHICLE                  SYS 0000 6595 MISSILE TEST         GP   GP   VANDENBERG          CAL

09SEP74   2811  SNR SAFEGUARD LCH SYS INTGR DIR SYS 0000 6595 MISSILE TEST         GP   GP   VANDENBERG          CAL
15JAN73   2835A SNR SAFEGUARD LCH SYS INTGR DIR SYS 0000 0000 MISSILE TEST         GP   GP                       CAL
01APR73   2811  CH SAFGD TST INTEG LCH CON SYS  SYS 0000 0000 MISSILE TEST         GP   GP                       CAL
31AUG71   2835B AEROSP GND EQUIP PROJ OFF       SYS 0000 0000 SPACE/MISSILE SYS    ORG  NAF                      CAL
31MAY70   2831B AGE PROJ ENGR                   SYS 0000 0000 SPACE/MISSILE SYS    ORG  NAF                      CAL
20JUN69   2831B PROJ OFF                        SYS 0000 0000 SPACE/MISSILE SYS    ORG  NAF                      CAL
17NOV68   2835A MECHANICAL ENGR,MINUTEMAN II    SAC 0000 0000 STRATEGIC MISSILE    WING WING                     N DAK
16AUG68   2835A MECH ENGR                       SAC 0000 0000 STRATEGIC MISSILE    WING WING                     N DAK
01SEP67   2835A MECH ENGR                       SAC 0000 0000 STRATEGIC MISSILE    WING WING                     N DAK
01MAR67   2835A MECH ENGR,MINUTEMAN 2           SAC 0000 0000 STRATEGIC MISSILE    WING WING                     N DAK
01SEP66   2835A MECHANICAL ENGR                 SAC 0000 0000 STRATEGIC MISSILE    WING WING                     N DAK
01MAR66   2835A MECHANICAL ENGINEER,MINUTEMAN 2 SAC 0000 0000 STRATEGIC MISSILE    WING WING                     N DAK
28AUG65   2831A MECH ENGR                       SAC 0000 0000 STRATEGIC MISSILE    WING WING                     N DAK
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                                   NAME:

 *** C U R R E N T   P O S I T I O N   D A T A ***

DT START PRES POSN: 21 AUG 83
CURR POSN:   GM-0801 -15
CURR POSN TITLE: SUPERVISORY SYSTEMS ENGINEERING MANAGER
SUPV LEVEL:  1 FIRST LEVEL SUPERVISOR
POSN LOC:    J POSNS AT DIVSN-PROD OR SYST ACQSTN
MAJCOM:      SYS
GSA GEOLOC:  OHIO
SON:         WRT-PATTERSON AFB OH


SKILL GEN:   DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:     BLB GENERAL ENGINEER
SHRED:           NONE
SUB SHRED:       NONE
PERCENT:     50

SKILL 2:     CCC AEROSPACE ENGINEER
SHRED:       FLV FLIGHT VEHICLES
SUB SHRED:   1MK ROTARY WING
PERCENT:     25

SKILL 3:     CCC AEROSPACE ENGINEER
SHRED:       FLV FLIGHT VEHICLES
SUB SHRED:   1MJ V-STOL/STOL
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 *** E D U C A T I O N   D A T A ***

                    HIGH
ACAD LEVEL:     MASTERS DEGREE
ACAD DISCIP:     BUSINESS MANAGEMENT & ADMIN
EDUC SPEC:
CREDIT HRS:     0030

CREDIT TYPE:    SEMESTER HOURS
SCHOOL TYPE:    COLLEGE OR UNIVERSITY
MAJOR/MINOR:    NON
ACAD LEV YR:    68

TOTAL CREDIT HRS:          000
TYPE TOTAL CREDIT HRS:     0
ACAD LEVEL AT ENTRY:       POST BACH DEG WORK
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                              *** E X P E R I E N C E   H I S T O R Y ***

DT START    DT LEFT    PAY    OCC     CIV      CONUS      SPL      APT    FED    CMD   WORK    BASIS      TOTAL      TOTAL
  POSN       POSN      PLAN  SERIES   GRADE   OS AREA   PRGM ID    TYPE   AGCY         SCHED   PER ACT   DET MOS    MO EXP

 821018     830820     GM    0801      15       US                  1A     AF    SYS    F                 01007      01007

SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:   BLB GENERAL ENGINEER                          SK 1 MOS EXP: 00504
SHRED:         NONE                                      SKILL 1 PCT:  50
SUB SHRED:     NONE

SKILL 2:   CCC AEROSPACE ENGINEER                        SK 2 MOS EXP: 00252
SHRED:     FLV FLIGHT VEHICLES                           SKILL 2 PCT:  25
SUB SHRED: 1MK ROTARY WING

SKILL 3:   AKM OFFICER/ADMINISTRATOR                     DUTY LOC:          WR PATT/SYS ONLY
SHRED:     TMT TECHNICAL MANAGEMENT                      POSN LOC INDIV:  J POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED: 1VU AIRCRAFT                                  TNG PROG ID:       NOT APPLICABLE
                                                         CAREER PROG DESIG:
SUP LEVEL:  SECOND LEVEL SUPERVISOR                      CAREER PROG ID:

EXP TYPE:   DETAIL
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PREPARED  03 JAN 85                        *** C I V I L I A N   C A R E E R   B R I E F ***                  FILE DATE  02 JAN 85
FOR    OHDPC0005187                                            OPTION 1                                    OFFICE   SYS/DPC

                                             *** E X P E R I E N C E   H I S T O R Y ***

DT START    DT LEFT    PAY     OCC      CIV      CONUS       SPL      APT     FED     CMD   WORK      BASIS       TOTAL        TOTAL
  POSN       POSN      PLAN   SERIES    GRADE   OS AREA    PRGM ID    TYPE    AGCY          SCHED    PER ACT    DET MOS    MO EXP

 810503     830820      GM    0801       15        US                  1A      AF     SYS      F                  00000      02757

SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:   BLB GENERAL ENGINEER                            SK 1 MOS EXP: 01379
SHRED:         NONE                                        SKILL 1 PCT:   50
SUB SHRED:     NONE

SKILL 2:   BPX ELECTRONICS ENGINEER                        SK 2 MOS EXP: 00689
SHRED:     TGE SPECIALIZED SYSTEMS                         SKILL 2 PCT:   25
SUB SHRED:     NONE

SKILL 3:   CMC BUSINESS/INDUSTRY SPCLST                    DUTY LOC:           WR PATT/SYS ONLY
SHRED:         NONE                                        POSN LOC INDIV:  J  POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED:     NONE                                        TNG PROG ID:        NOT APPLICABLE
                                                           CAREER PROG DESIG:
SUP LEVEL:  MANAGER                                        CAREER PROG ID:

EXP TYPE:   FED CIVIL SVC
                                             *** E X P E R I E N C E   H I S T O R Y ***

DT START    DT LEFT    PAY     OCC      CIV      CONUS       SPL      APT     FED     CMD   WORK      BASIS       TOTAL        TOTAL
  POSN       POSN      PLAN   SERIES    GRADE   OS AREA    PRGM ID    TYPE    AGCY          SCHED    PER ACT    DET MOS    MO EXP

 780618     810502      GS    0801       15        US                  1A      AF     SYS      F                  00000      03447

SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:   BLB GENERAL ENGINEER                            SK 1 MOS EXP: 01724
SHRED:         NONE                                        SKILL 1 PCT:   50
SUB SHRED:     NONE

SKILL 2:   BPX ELECTRONICS ENGINEER                        SK 2 MOS EXP: 01724
SHRED:     TGE SPECIALIZED SYSTEMS                         SKILL 2 PCT:   50
SUB SHRED:     NONE

SKILL 3:       NONE                                        DUTY LOC:           WR PATT/SYS ONLY
SHRED:         NONE                                        POSN LOC INDIV:  J  POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED:     NONE                                        TNG PROG ID:        NOT APPLICABLE
                                                           CAREER PROG DESIG:
SUP LEVEL:  MANAGER                                        CAREER PROG ID:

EXP TYPE:   FED CIVIL SVC
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PREPARED: 03 JAN 85                      *** C I V I L I A N   C A R E E R   B R I E F ***                      FILE DATE: 02 JAN 85
FOR     OHDPC0005187                                          OPTION 1                                   OFFICE:  SYS/DPC

                                               *** E X P E R I E N C E   H I S T O R Y ***

DT START    DT LEFT     PAY     OCC       CIV      CONUS       SPL        APT     FED     CMD    WORK      BASIS       TOTAL      TOTAL
  POSN        POSN      PLAN   SERIES    GRADE   OS AREA    PRGM ID     TYPE    AGCY           SCHED    PER ACT     DET MOS     MO EXP

 771206      780617      GS     0801      15        US                   1A      AF     SYS      F                   00000      00637

SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:   BLB GENERAL ENGINEER                              SK 1 MOS EXP: 00319
SHRED:         NONE                                          SKILL 1 PCT:  50
SUB SHRED:     NONE

SKILL 2:   CCC AEROSPACE ENGINEER                            SK 2 MOS EXP: 00319
SHRED:     FLV FLIGHT VEHICLES                               SKILL 2 PCT:  50
SUB SHRED:     NONE

SKILL 3:       NONE                                          DUTY LOC:            WR PATT/SYS ONLY
SHRED:         NONE                                          POSN LOC INDIV:  J   POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED:     NONE                                          TNG PROG ID:         NOT APPLICABLE
                                                             CAREER PROG DESIG:
SUP LEVEL:  MANAGER                                          CAREER PROG ID:

EXP TYPE:   FED CIVIL SVC

                                               *** E X P E R I E N C E   H I S T O R Y ***

DT START    DT LEFT     PAY     OCC       CIV      CONUS       SPL        APT     FED     CMD    WORK      BASIS       TOTAL      TOTAL
  POSN        POSN      PLAN   SERIES    GRADE   OS AREA    PRGM ID     TYPE    AGCY           SCHED    PER ACT     DET MOS     MO EXP

 770808      771205      GS     0801      15        US                   1A      AF     SYS      F                   00390      00390

SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:   BLB GENERAL ENGINEER                              SK 1 MOS EXP: 00195
SHRED:         NONE                                          SKILL 1 PCT:  50
SUB SHRED:     NONE

SKILL 2:   BPX ELECTRONICS ENGINEER                          SK 2 MOS EXP: 00195
SHRED:     TGE SPECIALIZED SYSTEMS                           SKILL 2 PCT:  50
SUB SHRED: 1SN SIMULATORS

SKILL 3:       NONE                                          DUTY LOC:            WR PATT/SYS ONLY
SHRED:         NONE                                          POSN LOC INDIV:  J   POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED:     NONE                                          TNG PROG ID:         NOT APPLICABLE
                                                             CAREER PROG DESIG:
SUP LEVEL:  MANAGER                                          CAREER PROG ID:

EXP TYPE:   DETAIL

PCN  SPC21A                               (FOR OFFICIAL USE ONLY)                                    PAGE 07 OF BRIEF 0001
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PREPARED: 03 JAN 85                     *** C I V I L I A N   C A R E E R   B R I E F ***              FILE DATE: 02 JAN 85
FOR:    OHDPC0005187                                        OPTION 1                                 OFFICE:  SYS/DPC

                                          *** E X P E R I E N C E   H I S T O R Y ***

DT START   DT LEFT    PAY   OCC     CIV     CONUS      SPL      APT   FED    CMD   WORK     BASIS      TOTAL      TOTAL
  POSN      POSN      PLAN  SERIES  GRADE   OS AREA    PRGM ID  TYPE  AGCY         SCHED    PER ACT    DET MOS    MO EXP

 760801    780617     GS    0801     15       US                 1A    AF    SYS     F                 00390      02253

SKILL GEN: DE2 RSCH & DEV SYSTEMS MANAGEMENT

SKILL 1:    BLB GENERAL ENGINEER                            SK 1 MOS EXP: 01127
SHRED:          NONE                                        SKILL 1 PCT:  50
SUB SHRED:      NONE

SKILL 2:    CCC AEROSPACE ENGINEER                          SK 2 MOS EXP: 01127
SHRED:      FLV FLIGHT VEHICLES                             SKILL 2 PCT:  50
SUB SHRED:      NONE

SKILL 3:        NONE                                        DUTY LOC:            WR PATT/SYS ONLY
SHRED:          NONE                                        POSN LOC INDIV:  J   POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED:      NONE                                        TNG PROG ID:         NOT APPLICABLE
                                                            CAREER PROG DESIG:
SUP LEVEL:  MANAGER                                         CAREER PROG ID:

EXP TYPE:   FED CIVIL SVC
                                          *** E X P E R I E N C E   H I S T O R Y ***

DT START   DT LEFT    PAY   OCC     CIV     CONUS      SPL      APT   FED    CMD   WORK     BASIS      TOTAL      TOTAL
  POSN      POSN      PLAN  SERIES  GRADE   OS AREA    PRGM ID  TYPE  AGCY         SCHED    PER ACT    DET MOS    MO EXP

 681006    760731     GS    0801     15       US                 1A    AF    SYS     F                 00000      09383

SKILL GEN: DA3 STU & ANAL SYSTEMS ANALYSIS/INTEGRATION

SKILL 1:    BLB GENERAL ENGINEER                            SK 1 MOS EXP: 04692
SHRED:          NONE                                        SKILL 1 PCT:  50
SUB SHRED:      NONE

SKILL 2:    CCC AEROSPACE ENGINEER                          SK 2 MOS EXP: 02346
SHRED:      FLV FLIGHT VEHICLES                             SKILL 2 PCT:  25
SUB SHRED:  PAS MISSILE

SKILL 3:    CCC AEROSPACE ENGINEER                          DUTY LOC:            WR PATT/SYS ONLY
SHRED:      FLV FLIGHT VEHICLES                             POSN LOC INDIV:  J   POSNS AT DIVSN-PROD OR SYST ACQSTN
SUB SHRED:  RPD REMOTELY PILOTED/DRONES                     TNG PROG ID:         NOT APPLICABLE
                                                            CAREER PROG DESIG:
SUP LEVEL:  MANAGER                                         CAREER PROG ID:

EXP TYPE:   FED CIVIL SVC

********END OF EXPERIENCE HISTORY********
PCN: SPC21A                               (FOR OFFICIAL USE ONLY)                              PAGE 08 OF BRIEF 0001
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PREPARED  03 JAN 85                *** CIVILIAN  CAREER  BRIEF ***                    FILE DATE   02 JAN 85
FOR    OHDPC0005187                            OPTION 1                               OFFICE   SYS/DPC

                         *** DEVELOPMENT  PROGRAM  REQUIRED  TNG ***

TYPE              TITLE                     ST DTE     GR DTE     PROJ CR IND                REASON REQUIRED
ABC    FEDERAL EXECUTIVE INSTITUTE EXECU    850708                RESIDENCE

ABC    FEDERAL EXECUTIVE INSTITUTE EXECU    830808                RESIDENCE

ABC    FEDERAL EXECUTIVE INSTITUTE EXECU    810706                RESIDENCE

ABA    FEI SR EX EDC PRMG                   800428                RESIDENCE

       UNK
                              *** PROJECTED  TRAINING  DATA ***

CRS CON NR                     TITLE                      ST DTE        GR DTE            TNG  PURPOSE

               UNK

               UNK

                               *** TRAINING  HISTORY  DATA ***

                 COURSE  ID                TRNG  TYPE              (TITLE)                    HOURS      GRD  DTE

          1ST    APPXYNGONEMNMGT              B99          MANAGEMENT OTHER                   0008        840606
          2ND    WASDJPAS                     C99          SUPERVISORY OTHER                  0001        810604
          3RD    TOSUCONCPTORWC3              HAL          COMPUTER SCI/ENGR CRS OTHER        0040        810320
          4TH    BBEOMPMCXXORWN1              CAX          USAF MILITARY PERS MGT CRS         0016        801218
          5TH    MASDGMASXXOPMN1              C99          SUPERVISORY OTHER                  0008        800813
          6TH    PCENEFFNEGOSDP3              PDB          CONTRACT&PROC CRS OTHER            0018        780331
          7TH    MUPAMATRIXOSDP3              CAL          ORGN&MGT THEORY CRS                0008        771027
          8TH    MUPAMATMANOSDC3              CAL          ORGN&MGT THEORY CRS                0008        761203
          9TH    TASMEO00020SD03              BBD          MGT COMM APPRECIATION CRS          0008        761118
         10TH    MEEEPROBLMOXRC3              BBA          INTMED LEVEL MISC CRS              0008        751113
         11TH                                              N/A
         12TH                                              N/A
         13TH                                              N/A
         14TH                                              N/A
         15TH                                              N/A

                             OCCUPATIONAL  CERTIFICATION

                             CERT NO          DATE                    OCCUPATION

                             1ST                            N/A
                             2ND                            N/A
                             3RD                            N/A

PCN  SPC21A                          (FOR OFFICIAL USE ONLY)                         PAGE 04 OF BRIEF 0001
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                                    NAME:                              GRADE: COL


**** ACADEMIC DATA ****   *** PROFESSIONAL MILITARY EDUC **   *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL      COURSE          METHOD       YR   1ST ABM AERO RESEARCH PLT CRSE-365  70
MAS  BUS ADM & MGT        ICAF          RES               80   2ND XSY F 4 OPERATIONAL TNG          67
     WRIGHT ST U OH  73   AC&STAFF      COR               72   3RD AJ3 COUNTERINSURGENCY COURSE     65
BAC  MIL SCIENCE          SQ OFF SCH    RES/COR           65   4TH ELU PLT INSTR TNG  T/38-70       64
     USAF ACD CO          NONE                                 5TH ERR BASIC SURVIVAL TNG           61

DUTY ************** DUTY HISTORY ************* MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ***************************
EFF DT   DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND                TYPE LVL  LOCATION
16JUL84   2996  SYS PRG DIR AGM65 SPO            SYS 0000 0000 AERO SYSTEMS        DIV  NAF  WR PATT/SYS          OHIO
05FEB83   2996  ASST DEP FOR DEV PLANNING        SYS 0000 0000 AERO SYSTEMS        DIV  INTC WR PATT/SYS          OHIO
16APR82   2996  SYS PRGM DIR C5B PRGM            SYS 0000 0000 AERO SYSTEMS        DIV  INTC WR PATT/SYS          OHIO

01OCT81   2996  CH PROJ DIV C17 PO DEPALFTTRNSY  SYS 0000 0000 AERO SYSTEMS        DIV  INTM WR PATT/SYS          OHIO
22JUN80   2991  DIR TEST AND EVAL ALFT TRNRS     SYS 0000 0000 AERO SYSTEMS        DIV  INTM WR PATT/SYS          OHIO
13AUG79   0003  STUDENT ICAF                     ELM ICAF 0000 AFELM NDU           JCS  STU  FT MCNAIR            DIC
19MAR78   2685  OPERATIONS RSCH SYS ANAL         ELM 0000 0000 AFELM OFC SEC DEF   DOD  DD/J PENTAGON             VIR
02MAY77   /681  OPERATIONS RSCH SYS ANAL         ELM QSD1 0000 AFELM DEPT DEFENSE  DOD  DD/J PENTAGON             VIR
19NOV75 Y1455Y  STDY DIR AIR OPS TAC SYS DIV     HAF SA12 0000 U S AIR FORCE       HQ   HAF  ROSSLYN              VIR

01SEP74  1455X  STUDY DIR AIROPS TAC SYS DIV     HAF 2112 0000 U S AIR FORCE       HQ   HAF  ROSSLYN              VIR
31AUG73  1451X  AIR OPS OFF TAC SYS DIV          HAF SA12 0000 U S AIR FORCE       HQ   HAF  ROSSLYN              VIR
01JUL72  2865B  OP OFF                           SYS 0000 0000 TEST                WING WING                      OHIO
01JUL71  2865B  OP OFF                           SYS 0000 0000 TEST                WING WING                      OHIO
17JAN71  2861B  AERO RSCH FLT TEST OFF           SYS 0000 0000                     DET  NAF                       OHIO
18MAY70  2865A  AERO RSCH FLT TEST OFF           SYS 0000 0000                     DIV  NAF                       OHIO
16JAN69  2861B  STU AEROSP RSCH PLT              SYS 0000 0000 SCHOOL              SQ   STU                       CAL
28JUN68  1115F  ACFT COMR F4C                    PAF 0000 0000 TACTICAL FIGHTER    SQ   SQ                        VIETS
28MAR67  1111R  STU USAF REPLACEMENT TNG CRS     TAC 0000 0000 TACTICAL FIGHTER    SQ   STU                       CAL
27AUG66  1355C  FLIGHT TNG INSTR,T38             ATC 0000 0000                     WING WING                      OKLA
13OCT65  1355C  FLT TNG INSTR-T38                ATC 0000 0000                     WING WING                      OKLA
17APR65  1355C  FLIGHT TNG INSTRUCTOR            ATC 0000 0000                     SQ   SQ                        OKLA
15JAN65  0000   STU.SOS                          AUN 0000 0000 SQUADRON OFFICER    SCH  STU                       NAUSA
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LAST NAME	FIRST NAME	MI	AFSN	GRADE 7i/AJ	PLACE OF BIRTH	DATE OF LAST OER	
[redacted]				[redacted] 13 Sept 18	[redacted]	30 Jun 72	2

CHRONOLOGICAL LISTING OF SERVICE

EDOA	DAFSC	BRIEF DESCRIPTION OF DUTY—ORGANIZATION AND STATION
		CONTINUOUS SERVICE FROM 3 Jun 59
3Jun59	0006	Plt Tng, 3303rd Plt Tng Gp (C/P), Bartow AFB, Fla (ATC)
1Feb60	0006	Stu Off, Bsc Plt Tng, 3575th Plt Tng Sq, Vance AFB, Okla (ATC)
12Aug60	1121D	Stu Off, Adv Intcp Plt, 3555th Fly Tng Sq (S), Perrin AFB, Tex (ATC)
1May61	1125D	Ftr Intcp Plt, 16th Ftr Intcp Sq, Naha AB, Okinawa RI (PACAF)
3Aug64	1355C	Flt Tng Instr (703), 3575th Plt Tng Sq, Vance AFB, Okla (ATC)
3Jan65	1355C	(TDY, SOS, Maxwell AFB, Ala) (703), 3575th Plt Tng Sq, Vance AFB, Okla (ATC)
25Apr65	1355C	Flt Tng Instr, 3575th Plt Tng Sq, Vance AFB, Okla (ATC)
27Oct65	1355C	Flt Tng Instr, 3575th Plt Tng Wg, Vance AFB, Okla (ATC)
3Apr67	1111F	**Stu, Plt Tac Ftr, Crse 111509F, 431st Tac Ftr Sq, Geroge AFB, Calif (TAC)**
[illegible]Oct67	1115F	Acft Cmdr, F-4C, 391st Tac Ftr Sq, Cam Ranh Bay AB, RVN (PACAF)
[illegible]Jul68	1115F	Acft Commander F4C, 558 Tac Ftr Sq, Cam Ranh Bay AB, RVN (PACAF)
18Nov68	2861B	CEN, Stu CL69A, Aerosp Rsch Plt Sch, AFFTC, Edwards AFB, Calif (AFSC)
~~70Feb08~~	--------	~~Aeros Rsch Flt Test Officer, Det 7, Hq Aero Sys Div, Wright-Patterson AFB, Ohio (AFSC)~~
70Feb08	2865A	NAF Aero Rsch Flt Tst Off, Cargo Opns Br, Hq Aero Syd Div, Wright-Patterson AFB, Ohio (AFSC)
71Jan11	2861B	NAF Aero Rsch FT Offr, Ftr Ops Branch, HQ ASD, Wright-Patterson AFB, Ohio (AFSC)
71Jul16	2865B	Wg, Opns Off, Fighter Opns Br, Tst Ops Div, 4950 Test Wg, WPAFB, Ohio (AFSC)
72Feb10	2865B	WG, Opns Off, Systems Flight Test, Fighter Br, 4950 Test Wg, Wright Patterson AFB, Ohio (AFSC)
73Aug31	1451X	HAF,AirOpsOff,TacSysDiv,ACS/StudiesAndAnalysis,Pentagon,(HQ USAF)

COMBAT REPORT	10 REMARKS
210 Aerial Cmbt Missions, 810.6 Cmbt Hrs. F4c/d/ C-130 E Acft/ SEA/ 26Oct67,24Oct68, 25 Out of Country Miss. as defined in Part 1 ALMAJCOM Msg 421-66//VietnamAirOffPhII,Vietnam Air/Gnd,VietnamAirOffPhIII,67Mar09to68Oct31,(3BSS)//	[redacted]
	BAS'L AFSC 112D 1115B

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                                                    *** UNCLAS : FOR OFFICIAL USE ONLY ***
PREPARED: 84 NOV 09                              ATLAS VARIABLE INQUIRIES - STANDARD RUN # 125                      EFFECTIVE DATE: 84 NOV 03
*************NAME*********** ***SSAN** DAFSC- EFF-DT ***********DUTY-TITLE********** LEVL DET- NUMB KND TY *****LOCATION**** CMD RTG
                              564523403  2996  840320 SPD UPPER STAGES PRGM OFF       NAF  0000 0000 SMU DV LOS ANGELES       SYS 1D
------------SERVICE-DATA-----------
PLSD  640512 BRD 640512 DOS 940531       2991  820816 SPD UPPER STAGE PRGM OFC        INTC 0000 0000 SMU DV LOS ANGELES       SYS 1D

GRADE COL 831201 PERM-PROM DEF O         2716  810101 DIR OF SP DEF SYS CONTR         NAF  0000 0000 SMU DV LOS ANGELES       SYS 1D
COMP REG                 PERM-GRADE COL
TAFMSD 640214 TAFCSD 640512 AGE 43       2716  791021 DIR PGM CON AND ADV PLNG DIR    NAF  0000 0000 SMU DV LOS ANGELES       SYS 1D

DAS 750210 ADSCD 851130       RS 10      2716  780403 DIR PGM CON AND ADV PLNG DIR    NAF  0000 0000 SMS OR LOS ANGELES       SYS 1D

DDSD 671203 STRD 671203 DEROS            2716  770101 CH SYS PLNG ANAL AND RQMTS DIV  NAF  0000 0000 SMS OR LOS ANGELES       SYS 1D
NR-LONG 00  NR-SHRT 1
                                         2711  750210 CH PROGRAMS BRN                 NAF  0000 0000 SMS OR LOS ANGELES       SYS 1D
------------EDUCATION-----------
MAS  BUSS ADM/MGT, R & D MGT             2941  730605 STU GRAD R D MANAGEMENT USC     STU  C100 0000 ITE IN LOS ANGELES IT 02 AUN 1C
U SOUTHN CAL CA AFIT CIV       75
                                         0904  721231 SECTION COMDR                   ADIV 0000 0000 SOS SC YYYY              AUN 1B
BAC  ENGINEERING
UCLA          CA NONE-N/A                0904  720811 SEC COMDR                       ADIV 0000 0000 SOS SC YYYY              AUN 2B

------------ PME-----------               0904  710802 SEC COMDR                       ADIV 0000 0000 SOS SC YYYY              AUN TA
NAT SCTY MGT COR               78
AC&STAFF     COR               77        0904  701202 INSTR                           ADIV 0000 0000 SOS SC YYYY              AUN TA
SO OFF SCH   RES               69
NONE         NONE                       H0904  700501 INSTR,WG F                      ADIV 0000 0000 SOS SC YYYY              AUN 9A

------------FLYING-----------            1535A 690901 NAV KC135                       SQ   0000 0000 ARH SQ YYYY              SAC 9A
RATING SR NAV     STAT SUS
AIRCRAFT YR-HOUR  TOTAL-HOURS             15352 681227 NAV CR KC135                    SQ   0000 0000 ARH SQ YYYY              SAC 9A
T-29     73 0419    02544
C-131    73 0166  ASD 640616             15352 680813 NAV SNR KC135                   SQ   0000 0000 ARH SQ YYYY              SAC 8A
KC-135   70 0470  DSD 640512
C-54     67 0388                         15352 680512 NAV KC135                       SQ   0000 0000 ARH SQ YYYY              SAC 9
C-47     67 0089  RTN-RTD
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                    NAME:                          GRADE: LTC

**** ACADEMIC DATA ****   *** PROFESSIONAL MILITARY EDUC **   *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL      COURSE          METHOD      YR   1ST OTT SEE CO-820 AFM-300-4        77
MAS  BUS ADM/MGT/PERSON    ACSSTAFF        RES/COR      80   2ND DRM STAFF OFF ORIENT SLVIA B     71
     CENTRAL MI U MI 72    SO OFF SCH   COR             73   3RD A6K SEE CO-820 AFM-300-4        69
BACS CHEMICAL ENGINEERI                                      4TH ENF MGMT,LABORATORY R AND D-40   67
     DAYTON U OH           NONE                              5TH ENC MIL TNG OFFICER BSC PERCOM   67

DUTY ************** DUTY HISTORY ************** MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ************************
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)   ID  DET  NBR  KIND                  TYPE LVL  LOCATION
25JUL83  2716  PROGRAM DIRECTOR, JTIDS           SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTC HANSCOM              MASS
17APR81  2716  CH PROG CON DIV JTIDS             SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTC HANSCOM              MASS

19NOV80  2716  CHIEF BUSINESS MANAGEMENT         SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTM HANSCOM              MASS
02JUL80  2716  CHIEF PROGRAM CONTROL JTIDS       SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTM HANSCOM              MASS
19AUG79  0003  STU AIR COMD AND STAFF COLLEGE    ATC 0000 0000 AIR CMD/STAFF      COLL STU  MAXWELL              ALA
23SEP77  2716  CMDRS EVAL ASST TM ENGR MGT CM    SYS 0000 0000 AF CONTRACT MGT    DIV  WAF  KIRTLAND             N MEX
12JAN76  2711  OFF EVAL SYS PROGRAM MANAGER      SYS 0000 0000 AF SYSTEMS         CMD  CMHQ ANDREWS              MLD

15SEP75  2911  OFF EVAL SYS PROGRAM MANAGER      SYS 0000 6590 SUPPORT            SQ   CMHQ ANDREWS              MLD
01APR75  2911  SPEC ASST TO AFSC VICE CMDR       SYS 0000 6590 SUPPORT            SQ   CMHQ ANDREWS              MLD
16MAY74  2911  SPECIAL ASST TO THE DCS P         SYS 0000 6590 SUPPORT            SQ   CMHQ ANDREWS              MLD

15MAY74  2811  SPECIAL ASSISTANT TO THE DCS P    SYS 0000 6590 SUPPORT            SQ   CMHQ ANDREWS              MLD
14MAY74  2811  DEV ENG RESOURSE MGR              SYS 0000 6590 SUPPORT            SQ   CMHQ ANDREWS              MLD
17JUL73  2811  DEV ENG RESOURSE MGR              SYS 0000 6590 SUPPORT            SQ   CMHQ ANDREWS              MLD
01FEB73  2811  DEV ENGR                          SYS 0000 0000 SUPPORT            SQ   CMHQ                      MLD
16APR72  2811  CH MGT OP OFF                     SYS 0000 0000 AF AERO-PROPULSION LAB  FDAG                      OHIO
27NOV71  2611  EXEC OFF COMDR                    SYS 0000 0000 AF AERO-PROPULSION LAB  FDAG                      OHIO
27MAY71  2611  EXEC OFF                          SYS 0000 0000 AF AERO-PROPULSION LAB  FDAG                      OHIO
27NOV70  2611  EXEC OFF-COMDR                    SYS 0000 0000 AF AERO-PROPULSION LAB  FDAG                      OHIO
26JUN70  2611  EXEC OFF-COMDR                    SYS 0000 0000 AF AERO-PROPULSION LAB  FDAG                      OHIO
27NOV69  2895E DEV ENGR                          SYS 0000 0000 AF AERO-PROPULSION LAB  FDAG                      OHIO
27MAY69  2895E DEV ENGR                          SYS 0000 0000 AF AERO-PROPULSION LAB  FDAG                      OHIO
27NOV68  2891E DEV ENGR                          SYS 0000 0000 AF AERO-PROPULSION LAB  FDAG                      OHIO
26JUN68  2891E DEV ENGR SP                       SYS 0000 0000                    LAB  FDAG                      OHIO
27NOV67  2891E DEV ENGR SP                       SYS 0000 0000 AF AERO-PROPULSION LAB  FDAG                      OHIO
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                                             *** UNCLAS - FOR OFFICIAL USE ONLY ***
PREPARED  84 NOV 09                          ATLAS VARIABLE INQUIRIES - STANDARD RUN # 125               EFFECTIVE DATE  84 NOV 03
*************NAME*********** ***SSAN** DAFSC- EFF-DT ***********DUTY-TITLE********** LEVL DET- NUMB KND TY *****LOCATION**** CMD RTG
                                252585580  2991  840811 DIRECTOR STRIKE SPO            NAF  0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D
------------SERVICE DATA------------
PLSD  630605 BRD 630605 DOS 930630     2716  810815 DIR TEST AND INTEG DIV            INTC 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D

GRADE COL 840301 PERM-PROM DEF 0       2865B 810115 DIRECTOR LANTIRN CTF              UNIT 0000 6512 TES SQ EDWARDS           SYS 1D
COMP REG                 PERM-GRADE COL
TAFMSD 630605 TAFCSD 630605 AGE 43     2865B 800813 DEPUTY DIRECTOR, A-10 CTF         UNIT 0000 6512 TES SQ EDWARDS           SYS 1D

DAS 810815 ADSCD 860228      RS 10     2865B 781001 DEPUTY DIRECTOR A10 JTF           UNIT 0000 6512 TES SQ EDWARDS           SYS 1D

ODSD 740411 STRD 740411 DEROS          2865D 780220 CH RESOURCE BR TEST PLT SCH       SQ   0000 0000 UTP SC EDWARDS           SYS 1D
NR-LONG 00  NR-SHRT 1
                                       2865D 771013 DEP CH OPERATIONS TEST PLT SCH    SQ.  0000 0000 UTP SC EDWARDS           SYS 1C
------------EDUCATION------------
MAS  SYSTEMS MANAGEMENT                2865D 770301 CH STABILITY CONTROL SEC OPS BR   SQ   0000 0000 UTP SC EDWARDS           SYS 2B
U SOUTHN CAL CA NONE-N/A      71
                                       2865D 760426 CH STAB CONT SEC OPS BR           SQ   0000 0000 UTP SC EDWARDS           SYS 2B
BAC  ENGINEERING SCIENCES
USAF ACD      CO MIL SVC ACAD          2865B 760101 DEP CH SYS TST SEC ACAD BR        SQ   0000 0000 UTP SC EDWARDS           SYS 9A

------------ PME ------------          2865B 740409 AEROSPACE RESEARCH FLT TEST OFF   GP   0000 4900 TES GP KIRTLAND          SYS 9A
ICAF          COR             76
AC&STAFF      SEM             76       1115F 730909 ACOMDR F4D E                      SQ   0000 0000 TFG SQ YYYY              PAF 9A
SQ OFF SCH    RES             68
NONE          NONE                     1495B 730430 CH LIFE SPT BR                    WING 0000 0000 TRN WG YYYY              PAF 1A

------------FLYING------------         1115F 720927 STU USAF OP TNG CRS F4C           STU  0000 0000 TFT SQ YYYY              TAC 1A
RATING CMD PILOT STAT
AIRCRAFT YR-HOUR  TOTAL-HOURS           2861A 710714 STU USAF AEROSP RSCH PLT          STU  0000 0000 SCH SQ YYYY              SYS 9A
A10      81 0255    04459
A-37     81 0441  ASD 630820           1235C 700924 ACFT COMDR R-D PRGM               SQ   0000 0000 SUT SQ YYYY              SAC 9
T-38     80 0183  OSD 630605
F4       78 0689                       1235C 700120 ACFT COMDR B52H                   SQ   0000 0000 SUT SQ YYYY              SAC 9
RF-4C    78 0291  RTN-RTD
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NAME   GRADE: COL

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**** ACADEMIC DATA ****     *** PROFESSIONAL MILITARY EDUC **      *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL        COURSE            METHOD       YR   1ST Z04 SEE CO-820 AFM-300-4            79
MAS  ENG SCI,DYNAMICS,E     AC&STAFF        COR               71   2ND N83 PROGRAM MGT CRS OF DEF MGT 576
     U CA BERKLEY CA 66     SO OFF SCH      COR               65   3RD ADD SEE CO-820 AFM-300-4            71
BAC  MIL SCIENCE                                                   4TH XJA JUNGLE SURV SCH PACAF PJSS  71
     USAF ACD CO                NONE                               5TH XSM A1 OPERATIONAL TNG              71

DUTY ************** DUTY HISTORY ************** MAJ ORGANIZATION (CURRENT & HISTORY)* CMD *************************
EFF-DT   DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND                 TYPE LVL  LOCATION
17JUN82  2996   DEPUTY FOR SURFACE ATTACK       SYS 0000 0000 HQ ARMAMENT DIV      DIV  INTC EGLIN                FLA
22AUG81  2996   DEPUTY FOR SURFACE ATTACK       SYS 0000 0000 HQ ARMAMENT DIV      DIV  INTM EGLIN                FLA
08JAN80  2996   SYSTEMS PROGRAM DIR, JP-233     SYS AE00 0000 HQ ARMAMENT DIV      DIV  INTM LONDON               UNKIN

28NOV79  2991   ASST PRGM DIR AMRAAM JSPO       SYS 0000 0000 HQ ARMAMENT DIV      DIV  INTM EGLIN                FLA
02FEB79  2991   ASST PRGM DIR AMRAAM JSPO       SYS 0000 0000 ARMT DEV/TEST        CENT INTM EGLIN                FLA
15JAN78  2716   ASST PRGM DIR AF USN DEV PRGM   SYS 0000 0000 ARMT DEV/TEST        CENT CEN  EGLIN                FLA
03AUG77  2716   ASST PRGM DIR AF USN DEV PRGM   SYS 0000 0000 ARMT DEV/TEST        CENT CEN  EGLIN                FLA
16MAY77  2711   CH MGT DIV AF USN DEV PROG      SYS 0000 0000 ARMT DEV/TEST        CENT CEN  EGLIN                FLA
01NOV76  2711   CHIEF PROGRAM CONTROL DIVISION  SYS 0000 0000 ARMT DEV/TEST        CENT CEN  EGLIN                FLA
23JUL76  2711   CH LGB HSM DIV                  SYS 0000 0000 ARMT DEV/TEST        CENT CEN  EGLIN                FLA
26JAN76  10430  PROGRAM MGT CRS                 SYS 0000 0000 AF SYSTEMS           CMD  STU  FT BELVOIR           VIR
11JUL74  10430  AIDE TO COMMANDER AFSC          SYS 0000 0000 AF SYSTEMS           CMD  CMHQ ANDREWS              MLD

05APR74  7011   AIDE TO COMMANDER AFSC          SYS 0000 0000 AF SYSTEMS           CMD  CMHQ ANDREWS              MLD
01AUG73 X14912  SYSTEMS SAFETY OFFICER          SYS 0000 0000 AF FLIGHT TEST       CENT CEN  ANDREWS              CAL
31MAR72 X1115Z  FLY SFTY OFFICER                SYS 0000 0000 AF FLIGHT TEST       CENT CEN                       CAL
01JAN72  1115J  FCOMDR                          PAF 0000 0000 SPECIAL OPERATIONS   SO   SO                        THAIL
30JUN71  1115J  FCOMDR A1                       PAF 0000 0000 SPECIAL OPERATIONS   SO   SO                        THAIL
17NOV70  1111B  STU OPL TNG CRS F100            TAC 0000 0000 TAC FTR TNG          SO   STU                       ARZ
20DEC69 G2835A  ASST PROF,ENGRG                 ACD 0000 0000 USAF ACADEMY         CMD  CMHQ                      COL
20DEC68 G2835A  ASST PROF,ENGRG MECH            ACD 0000 0000 USAF ACADEMY         CMD  CMHQ                      COL
01JUN68 T2831A  INSTR ENGRG MECH                ACD 0000 0000 USAF ACADEMY         CMD  CMHQ                      COL
28FEB68 T2831A  INSTR MATH                      ACD 0000 0000 USAF ACADEMY         CMD  CMHQ                      COL
14AUG67 T2831A  INSTR DEPT ENGR MECHANICS       ACD 0000 0000 USAF ACADEMY         CMD  CMHQ                      COL
15SEP66  7535   STU GRAD ENGRG MEC,U.CALIF      AUN 0000 0000                      COLL STU                       CAL
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                                   NAME:                                GRADE: BG




**** ACADEMIC DATA ****   *** PROFESSIONAL MILITARY EDUC **    *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL       COURSE           METHOD       YR    1ST PUO SEE CO-820 AFM-300-4 DSMC 76
MAS  ASTRONAUTICAL ENGI   AIR WAR COL  SEM                  73    2ND XJA JUNGLE SURV SCH PACAF PJSS 69
     AFIT WPAFB   OH 64   SO OFF SCH   COR                  62    3RD XVX SEE CO-820 AFM-300-4       69
BAC  ENGINEERING GENERA                                           4TH EBV MGMT,SYSTEMS PROGRAM-76    65
     US NAV ACD MD        NONE                                    5TH ERR BASIC SURVIVAL TNG         58

DUTY ************** DUTY HISTORY ************** MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ************************
EFF-DT   DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND               TYPE LVL  LOCATION
15DEC82   0002  CMDR-PROGRAM MANAGER PEACEKPR   SYS 0000 0000 BALLISTIC MISSILE  OFF  INTC NORTON            CAL
06AUG82   0002  COMMANDER AND PROGRAM MGR MX    SYS 0000 0000 BALLISTIC MISSILE  OFF  NAF  NORTON            CAL
15MAY82  A0002  COMMANDER                       SYS 0000 0000 BALLISTIC MISSILE  OFF  NAF  NORTON            CAL
23OCT81   0002  DCS-SYSTEMS                     SYS 0000 0000 AF SYSTEMS         CMD  CMHQ ANDREWS           MLD
30JUL80   0002  ASSISTANT DCS SYSTEMS           SYS 0000 0000 AF SYSTEMS         CMD  CMHQ ANDREWS           MLD
21OCT79   2996  PROGRAM MANAGER MISSILE X       SYS 0000 0000 BALLISTIC MISSILE  OFF  NAF  NORTON            CAL
11APR77   2996  ASSISTANT DEPUTY FOR MISSILE X  SYS 0001 0000 SPACE/MISSILE SYS  ORG  NAF  NORTON            CAL
01OCT76   2996  ASSISTANT DEPUTY FOR MISSILE X  SYS 0000 0000 SPACE/MISSILE SYS  ORG  NAF  NORTON            CAL
02SEP75   2996  ASST DEP FOR MINUTEMAN          SYS 0000 0000 SPACE/MISSILE SYS  ORG  NAF  NORTON            CAL
15JAN75   2711  DIR OF ENGINEERING              SYS 1200 0000 SPACE/MISSILE SYS  ORG  NAF  NORTON            CAL
20AUG73   2916  DIR PROJECTS DEP FOR A1         SYS 0000 0000                    DIV  NAF  WR PATT/SYS       OHIO
31DEC72   2916  DIR CONFIG MGT DEP B-1          SYS 0000 0000                    DIV  NAF                    OHIO
01JUL72   2916  DIR CONFIGURATION MGT           SYS 0000 0000                    DIV  NAF                    OHIO
01JUL71   2916  DIR CONFIG MGT                  SYS 0000 0000                    DIV  NAF                    OHIO
30OCT70 H2911   CH,CONFIG CHNG CON DIV          SYS 0000 0000                    DIV  NAF                    OHIO
01JUL69   1535Z NAV AC119K                      PAF 0000 0000 SPECIAL OPERATIONS SO   SO                     VIETS
30JAN69   1531Z NAV,AC119K                      TAC 0000 0000 SPECIAL OPERATIONS SO   SO                     OHIO
01JUL67   2811  SNR PROJ OFF                    SYS 0000 0000 SPACE/MISSILE SYS  ORG  NAF                    CAL
01JUL66   2811  STF DEV ENGR                    SYS 0000 0000                    DIV  NAF                    CAL
28FEB66   2845C PROJECT OFF,MINUTE MAN DIV      SYS 0000 0000                    DIV  NAF                    CAL
16SEP65   9999  STU,SYSTEM PROGRAM PLAN MANAGEM SYS 0000 0000                    DIV  STU                    CAL
15SEP64   2841C PROJECT OFF                     SYS 0000 0000                    AF   NAF                    NAUSA
15AUG63   0000  STU,GRAD,ASTRONAUTICS,INST-TECH AUN 0000 0000                    INST STU                    NAUSA
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                    NAME:                                    GRADE: LTC

**** ACADEMIC DATA ****     *** PROFESSIONAL MILITARY EDUC **    *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL        COURSE          METHOD        YR    1ST 2RZ SEE CO-820 AFM-300-4          83
MAS  BUS ADM/MGT,ENGINE     AIR WAR COL  RES                 82    2ND 2RX SEE CO-820 AFM-300-4          82
     DAYTON U OH     78     NAT SCTY MGT COR                 80    3RD U7A SEE CO-820 AFM-300-4          80
MAS  DIGITAL COMPUTER D     AC&STAFF     SEM                 77    4TH V8F JUNGLE SURVIVAL TNG SEA       72
     AFIT WPAFB   OH        SO OFF SCH   COR                 74    5TH ESE SEE CO-820 AFM 300-4          71

DUTY *************** DUTY HISTORY ************** MAJ ORGANIZATION (CURRENT & HISTORY)* CMD **************************
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)   ID  DET  NBR  KIND                  TYPE LVL  LOCATION
28JAN83  2716  SPD PLSS                         SYS 0000 0000 AERO SYSTEMS          DIV  INTC WR PATT/SYS         OHIO

28JUL82  2711  CH MGMT DIV PLS SPO              SYS 0000 0000 AERO SYSTEMS          DIV  INTM WR PATT/SYS         OHIO
03AUG81  0003  STU AIR WAR COLLEGE              ATC 0000 0000 AIR WAR COLLEGE       COLL STU  MAXWELL             ALA
26OCT80  2255C CH, OPERATIONS AND TRAINING DIV  PAF 0000 0008 TACTICAL FIGHTER      WING W/B  KUNSAN              KORES

05JUL80  2251C CH, OPERATIONS AND TRAINING DIV  PAF **** 8888                            W/B  UNKNOWN EXST        UNKWN
22JUL79 F2811  CH PLSS SECTION                  SYS 0000 4950 TEST                  WING W/B  WR PATT/SYS         OHIO
01FEB79 F2825  WING TEST DIRECTOR               SYS 0000 4950 TEST                  WING W/B  WR PATT/SYS         OHIO
15JUL78  2825  TACTICAL MISSION AREA PLANNER    SYS 0000 0000                       DIV  HAF  WR PATT/SYS         OHIO
30DEC75  2825  ELECTRONICS ENGINEER GENERAL     SYS 0000 0000                       DIV  HAF  WR PATT/SYS         OHIO


06JUN75  2821A STU GRAD ELECTRICAL ENGRG AFITS  AUN SE00 0000 AF INST OF TECH       INST STU  WR PATT/SYS         OHIO
06JUN74  2821A STU GRAD ELECTRICAL ENGRG AFITS  AUN 2500 0000 AF INST OF TECH       INST STU  WRIGHT PATTE        OHIO
22NOV73  1555C TEST PROJECT OFFICER F4          TAC 0000 0422 FIGHTER WEAPONS       SO   SO   NELLIS              NEV
10JUN73  1555C TEST PROJ OFF F4                 TAC 0000 0000 FIGHTER WEAPONS       SO   SO                       NEV
09MAR73  1555C TEST PROJ OFF F4                 TAC 0000 0000 FIGHTER WEAPONS       SO   SO                       NEV
01JUL72  1555C TEST PROJ OFF F4                 TAC 0000 0000 FIGHTER WEAPONS       SO   SO                       NEV
30MAR72  1555C TEST PROJ OFF F4                 TAC 0000 0000 FIGHTER WEAPONS       SO   SO                       NEV
31AUG71  1555C WPN SYS OFF F4D                  PAF 0000 0000 TACTICAL FIGHTER      SO   SO                       KORES
28FEB71  1555C WPN SYS OFF                      PAF 0000 0000 TACTICAL FIGHTER      SO   SO                       KORES
27SEP70  1555C WPN SYS OFF F4                   PAF 0000 0000 TACTICAL FIGHTER      SO   SO                       JAPAN
27MAR70  1555C WPN SYS OPR F4                   PAF 0000 0000 TACTICAL FIGHTER      SO   SO                       JAPAN
26NOV69  1555C WPN SYS OPR F4                   PAF 0000 0000 TACTICAL FIGHTER      SO   SO                       JAPAN
26MAY69  1111R STU OPL TNG CRS,F4               TAC 0000 0000 TACTICAL FIGHTER      SO   STU                      FLA
23MAY68  1571  STU ELCT WRFR OFF TNG BV7CA      ATC 0000 0000 ELECT WARFARE TNG     SO   STU                      CAL
22AUG67  0007  STU UNGRAD NAV TNG               ATC 0000 0000                       SO   STU                      CAL
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LAST NAME	FIRST NAME	MI	AFSN	GRADE	PLACE OF BIRTH	DATE OF LAST OER
[redacted] [redacted]				[redacted] CAPT 05 APR 1974	[redacted]	73Nov 21

8 CHRONOLOGICAL LISTING OF SERVICE

EDOA	DAFSC	BRIEF DESCRIPTION OF DUTY—ORGANIZATION AND STATION
		29May65 to 29 Sep66, HQ 2Lt, Hq CAC (ORS-RC) ARPC, Denver, Colo (RES)
		Continuous Active Duty From 30 Sep 66
10Oct66	2821B	Elct Engr, Comd Leased Sys Br, HQ Western CEEIA Region, McClellan AFB, Calif (AFLC)
23Aug67	0007	STU, UNGRAD NAV TNG 153132, 3535th Nav Tng Sq, Mather AFB, Calif (ATC)
6Jun68	1571	STU, EWO TNG B-V7C-A, 3537th EWTSq, Mather AFB, CA (ATC)
69Apr12	1555C	Stu Nav, F4, 111507B, 45th Tac Ftr Sq, MacDill AFB, Fla (TAC)
~~69Nov14~~	~~1555C~~	~~SQ, EWO, F4C, WSI 116, 391 TAC FTR SQ, MISAWA AB JAPAN (PACAF)~~
69Nov14	1555C	Sq Wpns Sys Opr, F4, 116, 391 Tac Ftr Sq, Misawa AB, Japan (PACAF)
71Mar3	1555C	Sq Weapon Systems Officer (116) 80th Tac Ftr Sq, Kunsan AB, Korea (PACAF)
71Aug25	1555C	Sq, Weapon Systems Officer, 116, 36th TFSq Kunsan AB, Korea (PACAF)
72Feb04	1555C	Sq. Test Project Officer F-4 116 422 FWS Nellis AFB Nv (TAC)

9 COMBAT REPORT	10 REMARKS
CMBT MSNS: 22Aug72-28Sep72-12Msns SEA/1Msn N.Viet-Tot 13 Msns in F-004D W/36.3Cmbt Hrs/	[redacted]

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                                        NAME:                        GRADE: COL

**** ACADEMIC DATA ****     *** PROFESSIONAL MILITARY EDUC **     *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL         COURSE          METHOD
DOC  ASTRONAUTICAL ENG.     ICAF            RES            YR     1ST PUO SEE CO-820 AFM-300-4
     ARIZ ST U      AZ 71   AIR WAR COL     SEM            80     2ND XJA JUNGLE SURV SCH PACAF PJSS  81
MAS  AERONAUTICAL ENGIN                                    78     3RD ERR BASIC SURVIVAL TNG          68
     MA INS TECH MA         NONE                                  4TH VBA SURVIVAL TNG SEA            68
DUTY ************** DUTY HISTORY ************** MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ************************
                                                                  5TH                                 67
EFF-DT   DAFSC  DUTY TITLE (CURRENT & HISTORY)  IB  DET  NBR  KIND
27JUL82  0002   DEP FOR SPACE DEF SYS           SYS 0000 0000 SPACE DIVISION       TYPE LVL  LOCATION
                                                                                   DIV  INTC LOS ANGELES       CAL
26FEB81  2996   ASST DEP FOR SP DEF SYS         SYS 0000 0000 SPACE DIVISION
                                                                                   DIV  NAF  LOS ANGELES       CAL
15AUG80  2991   SYS PGM DIR MISSION CON PGM OFF SYS 0000 0000 SPACE DIVISION
13AUG79  0940   RESEARCH FELLOW                 ELM 0000 0000 AFELM NDU            DIV  NAF  LOS ANGELES       CAL
12JAN77  2816   DIR NAV EQUIP AND AVIONICS DIR  SYS 0000 0000 SPACE/MISSILE SYS    JCS  DD/J FT MCNAIR         DIC
26JUL74  2816   DIR ENGINEERING DIRECTORATE                                        ORG  NAF  LOS ANGELES       CAL
                                                SYS 0000 0000 SPACE/MISSILE SYS
12MAY73  2711   DIR DIR AEROSPACE MECH SCI                                         ORG  NAF  LOS ANGELES       CAL
31DEC72  2711   DIR DIR AEROSPACE MECH SCI      SYS 0000 0000 F J SEILER RSCH
12MAY72  2711   DIR DIR AEROSP MECH SCI         SYS 0000 0000 F J SEILER RSCH      LAB  NA   LOS ANGELES
23AUG71  2845D  ASTR RSCH ENGR                  SYS 0000 0000 F J SEILER RSCH      LAB  NAF                    COL
14JUN70  2811   STU PHD ASTRO ENGRG AZ ST-U     SYS 0000 0000 F J SEILER RSCH      LAB  NAF                    COL
13JUN69  2811   STU PHD ASTR ENGRG ARIZ STATE-U AUN 0000 0000 AF INST OF TECH      LAB  NAF                    COL
11NOV68  1511   WAR PLANS OFF                   AUN 0000 0000                      COLL STU                    COL
20APR68  1535Z  NAV                             PAF 0000 0000 AIR FORCE            COLL STU                    ARZ
16JUN67  1535Z  NAV C130                        PAF 0000 0000 TAC ELECT WARFARE    AF   NAF                    ARZ
16JUN66  1535Z  NAV,JC130                       PAF 0000 0000                      SQ   SQ                     VIETS
15JAN66  1535   NAVIGATOR                       SYS 0000 0000                      SQ   SQ                     VIETS
16NOV64  1535   NAVIGATOR                       SYS 0000 0000                      SQ   SQ                     HAW
15NOV63  2846D  ASTRO ENGR,GYROSCOPE TEST BR    SYS 0000 0000                      SQ   SQ                     HAW
                                                SYS 0000 0000                      SQ   SQ                     HAW
                                                                                   AF   NAF                    NAUSA
                                                                                                               NAUSA
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LAST NAME	FIRST NAME	MI	AFSN	GRADE	PLACE OF BIRTH	DATE OF LAST OER	
[redacted]			[redacted]	MAJOR	[redacted]	73 MAY 14	2

CHRONOLOGICAL LISTING OF SERVICE

EDOA	DAFSC	BRIEF DESCRIPTION OF DUTY—ORGANIZATION AND STATION
		CONTINUOUS SERVICE FROM 3 June 1959
3Jun59	1531	Stu, (Grad) Astronautics, Mass Institute of Tech, Cambridge, Mass, IT, Wright-Patterson AFB,Ohio (AU)
22Jul61	2826	ElctEngr,DataEvalSec,AnalBr,Guid&ContDiv,DirofGuidTstFac,DepforDev&Test,HqAFMDC,HollomanAFB,NMex(AFSC)
1Sep61	2826	ElctEngr,ComponentTestSec,LabTestBr,Guid&ContDiv,DirofGuidTest,DepforDev&Test,HqAFMDC,HollomanAFB, NMex (AFSC)
15Nov61	2846D	AstroEngr,CompTestSec,LabTestBr,Guid&ContDiv,DirofGuidTest,DepforDev&Test,HqAFMDC,HollomanAFB,NMex(AFSC
20Sep62	2846D	AstroEngr,CompTestSec,LabTestBr,Guid&ContDiv,DepforGuid&Test,Hq AFMDC, Holloman AFB, NMex (AFSC)
1Mar64	2846D	AstroEngr,GyroscopeTestBr,LabTestDiv,Guid&ContDir,DepforGuidTest,Hq AFMDC, Holloman AFB, NMex (AFSC)
21Sep64	2845D	Astro Engr, Guid & Con Dir, Dep for Guid Tst, Hq AFMDC, Holloman AFB, NMex (AFSC)
11Jan65	1535	Navigator, 6593d Test Sq, Hickam AFB, Hawaii (AFSC)
31Jan67	1535Z	Navigator, 6593d Test Sq, Hickam AFB, Hawaii (AFSC)
6Apr68	1535Z	Sq Navigator, 361st Tac Elct Warfare Sq, Nha Trang AB, Vietnam (PACAF)
20Jul68	1535Z	War Plans Officer, Hq 7th Air Force, Tan Son Nhut AB, Vietnam (PACAF)
21Jul68	1511	War Plans Officer, Hq 7th Air Force, Tan Son Nhut AB, Vietnam (PACAF)
14Jun69	2811	Stu,PHD,Astro Engr, Ariz State Univ,Tempe,Ariz,AFIT,WPAFB,OHIO (AU)
71Aug9	2845D	LAB Astrnautical Rsch Engr, USAF ACADMEY, CO (AFSC)
72Jun01	2711	NAF/Dir, Dir of Aerospace-Mech Sci, Frank J. Seiler Research Lab, USAF Academy, Colorado (AFSC)

9 COMBAT REPORT	10 REMARKS
Vietnam Air Offensive, Phase II (BSS) 26Mar 68-31Mar68, AFP 900-2//VietnamAir/GroundCamp, BSS,68Mar26-68Jul07,AFM900-3//VietnamAirOffensiveCamp,PhaseIII,BSS,68Apr01-68Oct31,AFM 900-3//VietnamAirOffensiveCamp,PhaseIV,BSS,68Nov01-69Feb22,AFM900-3//Tet69/CounteroffensiveCamp,BSS,69Feb23-69May17,AFM900-3//	

APR 5 1974

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                         NAME:                              GRADE: COL


•••• ACADEMIC DATA ••••    ••• PROFESSIONAL MILITARY EDUC ••    ••• PROFESSIONAL SPECIALTY COURSES •••
LVL  SPECIALTY / SCHOOL    COURSE           METHOD         YR    1ST DRH STAFF OFF ORIENT SLVIA B     83
MAS  ASTRONAUTICAL ENGI    NAT WAR COL  RES                75    2ND SY7 SEE CO-820 AFM-300-4         77
     MA INS TECH MA  61    AC&STAFF     RES                71    3RD ABM AERO RESEARCH PLT CRSE-365   71
BAC  MIL SCIENCE           SO OFF SCH   RES                63    4TH V8D WATER SURVIVAL TNG           68
     USAF ACD CO           NONE                                  5TH ERR BASIC SURVIVAL TNG           68

DUTY •••••••••••••• DUTY HISTORY ••••••••••••• MAJ ORG*NIZATION (CURRENT & HISTORY)• CMD ••••••••••••••••••••••••
EFF-DT  DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND                 TYPE LVL  LOCATION
08JUL82 U0026  COMMANDER 6585 TEST GP          SYS 0000 6585 TEST                 GP   GP   HOLLOMAN            N MEX

09SEP81 A6596  COMMANDER AFPRO -DET 37         SYS 0037 0000 AF CONTRACT MGT      DIV  INTM HAWTHORNE           CAL
15SEP80 A6596  COMMANDER DET 37 AFCMD          SYS 0037 0000 AF CONTRACT MGT      DIV  NAF  HAWTHORNE           CAL
04MAR80  2996  AFSATCOM SYSTEM PROGRAM DIR     SYS 0000 0000 ELECTRONIC SYSTEMS   DIV  NAF  L.G. HANSCOM        MASS
11SEP78  2996  DIR AF SATCOMM TERMINAL SPO     SYS 0000 0000                      DIV  INTM L.G. HANSCOM        MASS
01MAY78  2991  DEPUTY DIRECTOR AFSATCOM SPO    SYS 0000 0000                      DIV  NAF  L.G. HANSCOM        MASS
28OCT77  2991  DEPUTY DIRECTOR AFSATCOM        SYS 0000 0000                      DIV  NAF  L.G. HANSCOM        MASS
02JUL76  2865B DEP DIR OF TEST OPS             SYS 0000 3246 TEST                 WING WING EGLIN               FLA

30JUL75  2865B WG ASST CH TEST OPS DIV         SYS 0000 3246 TEST                 WING WING EGLIN               FLA
05AUG74  0003  NATIONAL WAR COLLEGE                0003 1135 USAF SPECIAL ACTY    SO   STU  FT MCNAIR           DIC
29MAY73  2865D CH ACADEMICS BR                 SYS 0000 0000 USAF TEST PILOT SC   SCH  SO   EDWARDS             CAL
31DEC72  2865D CH STABILITY CONTROL SEC OP BR  SYS 0000 0000 SCHOOL               SO   SO                       CAL
13MAY72  2865D CH STABILITY CON SEC OP BR      SYS 0000 0000 SCHOOL               SO   SO                       CAL
24DEC71  2861D CH STABILITY CON SEC            SYS 0000 0000 SCHOOL               SCH  SO                       CAL
23FEB71  2861B STU USAF AEROSP RSCH PLT        SYS 0000 0000 SCHOOL               SO   STU                      CAL
15AUG70  1115E STU REG CRS-ARMED FORCES STF CO AUN 0000 0000 SUPPORT              DET  STU                      VIR
09AUG69  1135A FTR PLT F105F                   PAF 0000 0000 TACTICAL FIGHTER     SO   SO                       THAIL

30MAR69  1111E STU OPL TNG CRS                 TAC 0000 0000 COMBAT CREW TNG      SO   STU                      [illegible]
24JUN68  1355C ASST FLT COMDR                  ATC 0000 0000                      SO   SO                       OKLA
20SEP67  1355C INSTR PLT T38                   ATC 0000 0000                      WING WING                     OKLA
01APR67  1355C FLT TNG INSTR,T38               ATC 0000 0000                      WING WING                     OKLA
30SEP66  1355C FLT TNG INSTR,T38               ATC 0000 0000                      WING WING                     OKLA
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LAST NAME	FIRST NAME	MI	AFSN	GRADE	PLACE OF BIRTH	DATE OF LAST OER
[redacted]			[redacted]	73 JUN 18 LTC	[redacted]	73 APR 30 2

8 CHRONOLOGICAL LISTING OF SERVICE

EDOA	DAFSC	BRIEF DESCRIPTION OF DUTY—ORGANIZATION AND STATION
		CONTINUOUS SERVICE FROM 3 JUN 59
3Jun59	1531	Stu, Grad Astr, Mass Inst of Tech, Cambridge, Mass., Hq AFIT, WPAFB, Ohio (AU)
25Jul61	2725	(TDY Class 63-A, Squadron Off Sch., AC&SC Maxwell AFB, Ala
14Feb63	2725	Proj Off, Dep Dir of Test, X-20 SPO, D/Sys Mgmt, HEDASD, WPAFB (AFSC)
1Jul63	2725	Proj Engr/Test Supp, (660) Hq ASD WPAFB, Ohio (AFSC)
26Mar64	2725	R&D Off (660) Hq ASD, W-PAFB, Ohio (AFSC)
4Jun64	C006	Plt Trainee (703) 3576 Stu Sq, Vance AFB, Okla (ATC)
26Jun65	1355C	Flt Tng Instr, 3576 Plt Tng Sq, Vance AFB, Okla (703)(ATC)
28Jun65	1355C	(TDY PIT Randolph AFB, Tex) 3576th Plt Tng Sq, Vance AFB, Oklahoma (ATC)
1Sep65	1355C	Flt Tng Instr, 3576th Plt Tng Sq, Vance AFB, Oklahoma (ATC)
1Oct66	1355C	Flt Tng Instr, (703) Hq 3575th Plt Tng Wg, Vance AFB, Okla (ATC)
20Mar67	1355C	**Operations Div, Flt Tng Instr, (8AJ), Hq 3575th Plt Tng Wg, Vance AFB, Okla (ATC)**
19Oct67	1355C	Wg Instr Plt, (8AJ), Hq 3575th Plt Tng Wg, Vance AFB, Okla (ATC)
20May68	1355C	Gp, Asst Flt Comdr, 3576th Plt Tng Sq, Vance AFB, Okla (ATC)
21 Aug68	1355C	Sq, Asst Flt Comdr, 3576th Plt Tng Sq, Vance AFB, Okla (ATC)
3Nov68	1111E	**Stu Familiarization-Currency, 111501E, 4519 CCTSq, McConnell AFB, Kansas (TAC)**
25Nov68	1111E	Stu USAF Opl Tng Crse, F-105, 111506B, 4519th CCTSq, McConnell AFB, Kansas (TAC)
69Aug11	1115E	Sq, Tac Ftr Pilot, F-105F, 354th Tac Ftr Sq, Takhli RTAFB, Thailand (PACAF)
69Aug28	1135A	Tac Ftr Plt, F-105F, 354 Tac Ftr Sq, Takhli RTAFB Thailand (PACAF)
70Aug10	1115E	**NAF, STU ARMED FORCES STAFF COLLEGE, Det 12, 3825 Spt Gp, Norfork, VA (AU)**
71Jan22	2861B	SQ, Stu CL71A, Aerosp Rsch Plt Sch, Edwards AFB, Ca (AFSC)
71Dec24	2861D	SQ, INSTR AEROSP RSCH PLT BR OPS DIV, 6510 School Sq, Edwards AFB, CA (AFSC)
72May01	2865D	Sq Chief, Stability And Control Sec/Ops Br, 6510 School Sqdn (USAF/ATE) Edwards AFB, Ca
73May15	2865D	**SQ CHIEF, STABILITY AND CONTROL SEC/OPS BR, USAF TEST PILOT SCH, EDWARDS AFB, CA (AFSC)**
73Mar29	2865D	SQ CHIEF, ACADEMICS BR, USAFTPS, EDWARDS AFB, CA (AFSC)

9 COMBAT REPORT	10 REMARKS
Combat Missions SEA; F-105 17Aug69-2Jul70 155 Sorties, 382.7 Hrs//	[redacted]

SUMMARY OF RECORD OF SERVICE OF NAVY MAJOR PROGRAM MANAGERS

Senator Quayle: Please provide a summary of the complete career experience (showing all assignments) of each program manager for a major defense acquisition program as of December 13, 1984. Annotate each career summary to show the number of years of experience in the acquisition, support, or maintenance of weapon systems, and the particular assignments that are regarded as relating to the acquisition, support, or maintenance of weapons systems.

NAVY

Rear Admiral Captain USN
Program Manager, NAVSTAR GPS

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Naval Air Training Command	Jun 1959	
Student Naval Aviator	Oct 1960	
Attack Squadron 42	Nov 1960	
Replacement Pilot Training	Apr 1961	
Attack Squadron 75	Apr 1961	
Attack Pilot	Sep 1963	
Personnel Officer		
Attack Squadron 43	Sep 1963	
Instructor	Nov 1964	
Communications Officer		
US Naval Postgraduate School	Nov 1964	PG Student
Student	Oct 1966	Operations Research
Heavy Attack Squadron 123	Nov 1966	
Replacement Pilot Training	Jun 1967	
Attack Squadron 165	Jun 1967	Maintenance
Attack Pilot	Jun 1969	
Training Officer		
US Naval Academy	Jun 1969	Instructor;
Instructor	Dec 1970	Navigation
		Operations Analysis
		Computer Science
Commander Carrier Division 5	Dec 1970	
Operations Analyst	Jan 1972	
Naval Air Systems Command	Jan 1972	Maintenance
Weapons System Planning	Jun 1972	Acquisition
Commander Naval Air Forces, US	Jun 1972	Maintenance
Atlantic Fleet	Jun 1975	Support
A-6 Class Desk Officer		Acquisition
Operations Study Group	Jun 1975	
Operations Analyst	Jun 1977	
Naval Air Systems Command	Jun 1977	Acquisition
Assistant PM for ARM	May 1979	Support
Command Carrier Group TWO	May 1979	Maintenance
ACOS for Material Readiness	Jul 1980	Support
Naval Electronics Systems	Jul 1980	Acquisition
Command	Present	
Assistant Program Manager		
NAVSTAR GPS		

Number of years experience in acquisition, support and maintenance of weapons systems is 12.1 years. This does not include training or instructor duty, only on-the-job experience.

Captain
Program Manager, Submarine Advanced Combat Systems

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Naval Recruit Training Command	Jun 1960	
Recruit Training	Sep 1960	
Nuclear Power School	Sep 1960	Maintenance
Nuclear Power Training	Mar 1961	
Naval Schools Command	Mar 1961	
Electronics Technician	Jun 1961	----
"A" School		
Naval Training Center	Jun 1961	
Student (NESEP)	Aug 1961	
Massachusetts Institute	Sep 1961	PG Student - Marine
of Technology	Sep 1964	Geographics
Student (NESEP)		
Officer Candidate School	Oct 1964	
Officer Candidate	Feb 1965	
Submarine School	Feb 1965	
Student	May 1965	
Fleet ASW School	May 1965	
Student/Instructor	Jul 1966	
USS W.A. LEE (DL 4)	Aug 1966	Maintenance
Sonar/ASW/Weps/Operations/Off	May 1968	
Pennsylvania State University	May 1968	PhD Student
PhD Student	Sep 1972	Engineering Acoustics
Naval Sea Systems Command	Oct 1972	Maintenance
Project Officer Cruise Missile, Submarine Sonar, Submarine Tactical Array, Director Advanced Development and Integration, Assistant for Tactical Arrays	Oct 1980	Acquisition Support
USDAO United Kingdom	Oct 1980	Acquisition
Naval Sea Systems Command Technical Rep, Bath England	Mar 1983	Support
Naval Sea Systems Command	Mar 1983	Acquisition
Program Manager, Submarine Combat Systems	Present	Support

Number of years experience in acquisition, support and maintenance of weapons systems is 14.7 years. This does not include training or instructor duty, only on-the-job experience.

Captain USN
Director, Surveillance Systems Subgroup
(Advanced Tactical Radar Systems)

ASSIGNMENT AND DUTIES	FROM/TO	TOUR RELATIONSHIP
USS CONE (DD 866) Damage Control Assistant	Oct 1961 Apr 1962	Maintenance
USS J.P JONES (DD 932) Fire Control Assistant ASW Officer	Apr 1962 Nov 1962	Maintenance
USS CONE (DD 866) ASW Officer	Nov 1962 May 1963	Maintenance
USS SAUFLEY (DD 465) AW/Weapons Officer	May 1963 Mar 1965	Maintenance
USS BOSTON (CAG 1) AA Battery Officer	Apr 1965 Jul 1966	Maintenance
Ohio State University NROTC Instructor	Aug 1966 Jul 1968	
Naval Gunfire Liaison School Student	Aug 1968 Sep 1968	
3rd Marine Division Naval Gunfire Liaison Officer	Oct 1968 Oct 1969	
US Naval Postgraduate School Student	Nov 1969 Jul 1970	Student - Naval Architecture
University of Miami Student	Aug 1970 Aug 1972	Student - Naval Architecture
Charleston Naval Shipyard Surface Ship Class Desk Officer	Aug 1972 Aug 1975	Maintenance Support
Naval Sea Systems Command Director Acoustic Warfare and Communications Division	Aug 1975 Jan 1979	Acquisition Maintenance Support
Naval Sea Systems Command Technical Director, Guided Missile Frigate Acquisition Program	Jan 1979 Jul 1982	Acquisition
Naval Surface Weapons Center Officer in Charge	Jul 1982 Aug 1984	Acquisition
Naval Sea Systems Command Director Surveillance Systems Subgroup	Aug 1984 Present	Acquisition Support Maintenance

Number of years experience in acquisition, support and maintenance of weapons systems is 17.2 years. This does not include training or instructor duty, only on-the-job experience.

Captain USN
Program Manager, SSN 21-Class Submarine Acquisition Program

ASSIGNMENT AND DUTIES	FROM/TO	TOUR RELATIONSHIP
USS MITSCHER (DL 2) Damage Control Assistant	Jul 1961 Apr 1963	Maintenance
Massachusetts Institute of Technology Student	Jun 1963 Jun 1966	PG Student Electrical Engineering
Portsmouth Naval Shipyard Ship Superintendent	Aug 1966 Aug 1969	Maintenance
Massachusetts Institute of Technology PhD Student	Sep 1969 Feb 1972	PhD Student Ocean Engineering
Submarine Development Group ONE Staff Material Officer	Mar 1972 Sep 1974	Maintenance Support
Supervisor of Shipbuilding, Conversion and Repair SSN 685/NR-1/SSN 688 Project Manager Representative	Oct 1974 Jun 1979	Acquisition Maintenance
Naval Sea Systems Command Director, Hull Engineering Group	Jun 1979 Feb 1983	Acquisition Maintenance Support
Naval Sea Systems Command Submarine Acquisition Program	Feb 1983 Present	Acquisition

Number of years experience in acquisition, support and maintenance of weapons systems is 17.7 years. This does not include training or instructor duty, only on-the-job experience.

Captain USN
Program Manager, LAMPS Aircraft

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Naval Air Training Command Student Naval Aviator	Jun 1959 Sep 1960	
NAS Key West Replacement Pilot Training	Sep 1960 Dec 1960	
Anti-Submarine Helicopter Squadron 5 ASW Pilot Quality Control Officer	Dec 1960 Nov 1964	Maintenance
US Naval Postgraduate School Student	Dec 1964 Oct 1967	PG Student Aeronautical Engineering
Naval Air Propulsion Test Center Plans and Program Officer	Oct 1967 Jul 1969	Acquisition Maintenance Support
Naval Air Systems Command T56 Engine Project Officer	Jul 1969 Jul 1972	Acquisition Maintenance Support
Commander Naval Air Forces, US Pacific Fleet Power Plants Officer	Jul 1972 Jul 1975	Maintenance Support
Naval Air Rework Facility Production Officer	Jul 1975 Jun 1978	Maintenance Support
Naval Air Systems Command Head, Large Turbine Engine Branch	Jun 1978 Jun 1980	Acquisition Maintenance Support
Naval Air Systems Command Director AED/AMD/AVIA LDO/WO Management	Jun 1980 Jun 1981	
Naval Air Systems Command Program Manager H-2/H-3 Aircraft/LAMPS Mark III	Jun 1981 Present	Acquisition Maintenance Support

Number of years experience in acquisition, support and maintenance of weapons systems is 20.3 years. This does not include training or instructor duty, only on-the-job experience.

Captain USN
Program Manager, High Speed Anti-Radiation Missile

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Naval Air Training Command	Jul 1958	
Student Naval Aviator	Jun 1960	
Anti-Submarine Squadron ONE	Jun 1960	
Replacement Pilot Training	Sep 1960	
Anti-Submarine	Sep 1960	
Squadron 22	Jun 1964	
ASW Pilot		
Aircrew Training/LSO		
US Naval Postgraduate School	Jul 1964	PG Student -
Student	Jun 1967	Physics
Attack Squadron 127	Jun 1967	
Replacement Pilot Training	Jul 1967	
Attack Squadron 125	Aug 1967	
Instructor	Mar 1968	
Attack Squadron 155	Apr 1968	Maintenance
Attack Pilot	Jan 1971	
Operations/Maintenance/		
Administrative Officer		
Air Test and Evaluation	Feb 1971	Acquisition
Squadron 5	Mar 1973	
Projects Director		
Attack Squadron 125	Mar 1973	
Replacement Pilot Training	Jun 1973	
Attack Squadron 155	Jun 1973	Maintenance
Attack Pilot	Oct 1975	
Executive Officer/		
Commanding Officer		
Naval Weapons Center China Lake	Oct 1975	Acquisition
Assistant Technical Officer	Mar 1978	Support
for Air Warfare		
Commander 7th Fleet	Mar 1978	
Air Warfare Plans Officer	May 1979	
Naval Air Systems Command	May 1979	Acquisition
Director Armament	Jul 1982	Maintenance
Systems Division		Support
Naval Air Systems Command	Jul 1982	Acquisition
Program Manager,	Present	Maintenance
Defense Suppression		Support

Number of years experience in acquisition, support and maintenance of weapons systems is 15.3 years. This does not include training or instructor duty, only on-the-job experience.

Captain USN
Program Manager, VTXTS

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Naval Air Training Command	Jun 1958	
Student Naval Aviator	Mar 1960	
Fighter Squadron 174	Mar 1960	
Replacement Pilot Training	Nov 1960	
Fighter Squadron 11	Nov 1960	Maintenance
Fighter Pilot	Dec 1963	
LSO/Line Officer		
Empire Test Pilots School	Dec 1963	Test Pilot Training
Student	Dec 1964	
Naval Missile Center	Dec 1964	Acquisition
Strike Project Officer	Jan 1967	Support
Attack Squadron 174	Jan 1967	
Replacement Pilot Training	Jun 1967	
Attack Squadron 86	Jun 1967	
Attack Pilot	Jan 1969	
Assistant Operations Officer		
Naval Air Test Center	Feb 1969	Acquisition
Ordnance Project Officer	Jun 1971	Support
Naval Air Systems Command	Jul 1971	Maintenance
Assistant Program Manager	Sep 1975	Support
Commander Naval Air Force,	Oct 1975	Maintenance
US Atlantic Fleet	Jun 1978	Support
Fighter Class Desk Officer		
Naval Air Systems Command	Jul 1978	Acquisition
Project Coordinator/Armament	Jul 1980	Maintenance
Division/Head Program		Support
Management Branch		
Industrial College of the	Jul 1980	Student - Management
Armed Forces	Jun 1981	
Student		
Naval Air Systems Command	Jul 1981	Acquisition
Executive Director for T&E	Present	Maintenance
Program Manager, VTXTS		Support

Number of years experience in acquisition, support and maintenance of weapons systems is 20.3 years. This does not include training or instructor duty, only on-the-job experience.

Captain USN
Program Manager, HFIP Program
Communications System Program Office

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
USS JOHN HOOD (DD 655)	Aug 1957	Maintenance
2nd Div Officer	Jun 1958	
Submarine School	Jul 1958	
Student	Dec 1958	
USS GRAMPUS (SS 523)	Jan 1959	Maintenance
Electronics Maint Officer/ Supply Officer/Engineering Officer/Asst Weapons Officer	Jul 1963	
US Naval Academy	Aug 1963	
Staff	Jun 1966	
USS QUILLBACK (SS 420)	Jul 1966	
Operations Officer	Dec 1967	
USS TIRANTE (SS 420)	Dec 1967	
Executive Officer	Jun 1969	
Bureau of Naval Personnel	May 1970	
Personnel Training Coordinator	Mar 1971	
Commander Submarine Force, US	Apr 1971	
Atlantic Fleet Under Instruction	May 1971	
USS CUTLASS (SS 478)	May 1971	Maintenance
Commanding Officer	Dec 1972	
Submarine Squadron 12	Jan 1973	
Staff	Mar 1974	
Chief of Naval Operations	Jan 1973	Acquisition
OT&E Liaison	Mar 1974	
Chief of Naval Operations	Apr 1974	Support
Range & Test Facilities Coordinator	Jul 1976	
Commander Cruiser Destroyer	Jul 1976	
Group TWO Submarine Operations and Plans	Dec 1979	
Naval Electronic Systems Command	Dec 1979	Acquisition
Program Manager, HFIP	Present	Support Maintenance

Number of years experience in acquisition, support and maintenance o weapons systems is 15.6 years. This does not include training or instructor duty, only on-the-job experience.

Captain USN
Program Manager, JTIDS

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Electronics Reserve Unit	Jan 1957	Maintenance
Electronics Technician	Aug 1961	
Bombardier Navigator Aviation	Aug 1961	
Officers School	Feb 1962	
Student		
Navigation School	Feb 1962	
Student	Jun 1962	
Antisubmarine Warfare School	Jun 1962	
Student	Oct 1962	
Patrol Squadron 31	Oct 1962	
Replacement NFO Training	Apr 1963	
Patrol Squadron ONE	Apr 1963	Maintenance
Survival/Weight and Balance/ Logs and Records/Schedules	Jul 1965	
US Naval Postgraduate School	Jul 1965	PG Student - Physics
Student	Jun 1968	
Naval Facility San Salvador	Jun 1968	
Executive Officer	Jul 1969	
Defense Communications Agency	Jul 1969	Support
Weapons Experimental Officer/ Sensor Systems	Jul 1971	
Naval Air Systems Command	Jul 1971	Acquisition
Avionics Project Officer	Jul 1973	Support
Defense Nuclear Agency	Jul 1973	
Nuclear Plans/Requirements	Jul 1975	
Naval Air Rework Facility	Jul 1975	Maintenance
Weapons Engineering/ Comptroller	Aug 1978	
Navy Space Activity	Aug 1978	Acquisition
Deputy Program Manager, GPS	Jul 1981	Maintenance Support
Naval Electronic Systems Command	Jul 1981	Acquisition
Program Manager, JTIDS	Present	Maintenance Support

Number of years experience in acquisition, support and maintenance of weapons systems is 20.5 years. This does not include training or instructor duty, only on-the-job experience.

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                                                  *** UNCLAS - FOR OFFICIAL USE ONLY ***
PREPARED: 84 NOV 09                              ATLAS VARIABLE INQUIRIES - STANDARD RUN # 125                            EFFECTIVE DATE: 84 NOV 03
************NAME*********** **[redacted]* DAFSC- EFF-DT ***********DUTY-TITLF********** LEVL DET- NUMB KND TV *****LOCATION**** CMD RTG
                              [redacted]  2991  840801 T-46A SYS PROGRAM DIRECTOR      NAF  0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D
-----------SERVICE-DATA---
PLSD  650609 BRD 650609 DOS 950630        2991  831107 DIRECTOR T 46A                  INTC 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D

GRADE COL 810629 PERM-PROM DEF O          2991  830830 DIRECTOR OF T46A                INTC 000U 0000 ASD DV WR PATT/SYS ONLY  SYS 1D
COMP REG                PERM-GRADE COL
TAFMSD 650609 TAFCSD 650609 AGE 41        0076  820201 DIR PLANS AND POLICIES          CMHQ XPGO 0000 ELC CM KELLY/USS ONLY    ELC 1D

DAS 830830 ADSCD 840829        RS 10      0076  810901 DEPUTY DIRECTOR OF PROGRAMS     CMHQ XPOO 0000 ELC CM KELLY/USS ONLY    ELC 1D

OOSD 700824 STRD 700824 DEROS             2718  800210 CH SYS DIV F18 SPO              INTM 0000 0000 ASD DV WR PATT/SYS ONLY  SYS 1D
NR-LONG OO  NR-SHRT 1
                                          2710  781129 CH SYS DIV F18 SPO              INTM 0000 0000 AOD DV WR PATT/SYS ONLY  SYS 1D
-----------EDUCATION-----------
MAS  NUMERICAL METHDS AND COMPU           2718  771101 CH F18 CURRENT SYS DIV          NAF  0000 0000 AOD DV WR PATT/SYS ONLY  SYS 1D
HARVARD U MA MA SCHOLARSHIP    68
                                          2711  770830 PAVE LOW JOINT TEST FORCE CMDR  SQ   0000 0000 AOD DV WR PATT/SYS ONLY  SYS 2C
BAC  MATHEMATICS
USAF ACD      CO MIL SVC ACAD             2865A 760101 PAVE LOW JOINT TEST FORCE CMDR  SQ   0000 4953 TES SQ WR PATT/SYS ONLY  SYS FC

----------- PME-----------                2865A 750701 CH FLT B BRN                    SQ   0000 4953 TES SQ WR PATT/SYS ONLY  SYS 2B
ICAF          COR              72
SO OFF SCH    COR              71         2861A 750321 RESEARCH TEST PILOT CARGO BR    WING 0000 4950 TES WG WR PATT/SYS ONLY  SYS 1B
NONE          NONE
NONE          NONE                        2861A 741214 PLT ADV FLY CRS H53             STU  0000 1550 TES WG HILL AFB          CMC TA

---------*---FLYING-----------            2861A 740731 STUDENT CL74A USAFTPS           STU  0000 0000 UTP SC EDWARDS           SYS TA
RATING CMD PILOT STAT
AIRCRAFT  YR-HOUR   TOTAL-HOURS            2861B 740111 STUDENT CL74A USAFTPS           SQ   0000 0000 UTP SC EDWARDS           SYS 9A
HH-53     77 0585    03713
T-39/CT   77 0063  ASD 660627             0071  730322 SYS ANLYS                       DD/J 0000 0000 HAF HQ YYYY              HAF 9A
CH/HH-3   75 0456  0SD 650609
T-38      75 0056                         0071  721231 SYS ANLYS DIR-TACL AIR PRGMS    DD/J 0000 0000 HAF HQ YYYY              HAF 9A
T-33      74 0279  RTN-RTD
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                     NAME:                                  GRADE: COL



**** ACADEMIC DATA ****   *** PROFESSIONAL MILITARY EDUC **   *** PROFESSIONAL SPECIALTY COURSES ***
LVL  SPECIALTY / SCHOOL      COURSE          METHOD      YR   1ST 5KA SEE CO-820 AFM-300-4          84
MAS  ECONOMICS            ARMD FOR SC  RES               76   2ND TWN SEE CO-820 AFM-300-4          76
     ST MARYS U TX   71   AIR WAR COL  COR               76   3RD WYE SEE CO-820 AFM-300-4          73
BAC  MATHEMATICS          ICAF         COR               71   4TH AHG COMMUNICATIONS OFFICER-315  62
     UCLA          CA     NONE                                5TH

DUTY ************** DUTY HISTORY ************* MAJ ORGANIZATION (CURRENT & HISTORY)* CMD ***********************
EFF-DT   DAFSC  DUTY TITLE (CURRENT & HISTORY)  ID  DET  NBR  KIND               TYPE LVL  LOCATION
30OCT83   2991  DIR COMBAT THEATER COMM         SYS 0000 0000 ELECTRONIC SYSTEMS DIV  INTC L.G. HANSCOM        MASS
15JUN83   3016  DEPUTY FOR C3 SYSTEMS           HAF SAF1 0000 U S AIR FORCE      HQ   DD/J PENTAGON          VIR
02JUL79   3016  ASST FOR TELECOM COMD CONTROL   HAF SAF1 0000 U S AIR FORCE      HQ   DD/J PENTAGON          VIR


01APR79   3016  MNGR TELECOMM CNTR CONSOL PRGM  HAF SAF1 0000 U S AIR FORCE      HQ   DD/J PENTAGON          VIR
19MAR78 C3016  STF OFF OPR BR TELE DIV J3 OJCS ELM 0000 0000 AFELM OJCS         JCS  DD/J PENTAGON          VIR
30SEP77 C3016  STF OFF OPR BR TELE DIV J3 OJCS ELM JCS0 0000 AFELM JCS          JCS  DD/J PENTAGON          VIR
19AUG76 C3016  STF OFF OPR BR TELE DIV JS OJCS HAF JCS1 0000 U S AIR FORCE      HQ   DD/J PENTAGON          VIR
17JAN76 C3016  MBR STRAT SYS DIV OJCS          HAF JCS1 0000 U S AIR FORCE      HQ   DD/J PENTAGON          VIR
08AUG75   0003  ARMED FORCES STF COLLEGE            0004 1135 USAF SPECIAL ACTY  SO   STU  NORFOLK           VIR
12FEB73 C3016  AFCS LIAISON OFFECER            CMC 0000 2015 COMMUNICATIONS     SO   HAF  RANDOLPH          TEX


01FEB73 C3016  AFCS LN OFF AFMPC               CMC 0000 0000 AF COMM CMD        CMD  CMHQ                   TEX
25DEC71   3011  STU EWI C E SYS ENGRG           AUN 0000 0000 AF INST OF TECH    INST STU                    N J
03JAN71 C3011  AFCS LN OFF                     CMC 0000 0000 COMMUNICATIONS     SO   HAF                    TEX
03JAN70 C3011  AFCS LN OFF USAFMPC             CMC 0000 0000 AF COMM CMD        CMD  CMHQ                   TEX
02JUN69   3034  COMM ELCT OFF                   CMC 0000 0000 AF COMM CMD        DET  CMHQ                   DIC
10DEC68   3011  CH,OP BR                        HQC 0000 0000 USAF SPECIAL ACTY  SO   DD/J
09JUL68   3034  SYS DCON OFF                    HQC 0000 0000 USAF SPECIAL ACTY  SO   DD/J
04SEP67   3034  SYS CON OFF                     HQC 0000 0000 USAF SPECIAL ACTY  SO   DD/J                   VIR
04OCT66   3034  SYS CON OFF,PANAMA REGION       HQC 0000 0000 USAF SPECIAL ACTY  SO   DD/J                   VIR
07FEB66   3034  AUTODIN QUALITY CONTROL OFF     CMC 0000 0000 COMMUNICATIONS     GP   GP                     CAL
16AUG65   3034  AUTODIN QUALITY CONTROL OFF     CMC 0000 0000 COMMUNICATIONS     GP   GP                     CAL
15MAY65   3034  STU.SOS                         CMC 0000 0000 COMMUNICATIONS     GP   STU                    NAUSA
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Captain USN
Program Manager, AMRAAM

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Naval Air Training Command	Aug 1955	
Student Naval Aviator	Apr 1957	
Naval Air Basic Training Command	Jun 1957	
Flight Instructor	Oct 1958	
Fighter Squadron 174	Oct 1956	
Replacement Pilot Training	Mar 1959	
Fighter Squadron 84	Mar 1959	Maintenance
Fighter Pilot	Jun 1962	
Personnel/Shops and Hangers/ Safety Training		
US Naval Postgraduate School	Jul 1962	PG Student
Student	Jun 1964	Aeronautical Engineer
Bureau of Weapons	Jul 1964	Acquisition
Project Engineer	Jan 1966	Maintenance
Fighter Squadron 124	Feb 1966	
Replacement Pilot Training	Jun 1966	
Fighter Squadron 191	Jun 1966	
Fighter Pilot		
Administrative/Operations Officer	Jul 1968	
Naval Air Systems Command	Aug 1968	Acquisition
F-14 Project Officer	Aug 1971	Maintenance Support
Naval Air Rework Facility	Aug 1971	Maintenance
Production Officer/ Executive Officer	Jun 1975	Support
Naval Air Development Center	Jun 1975	CSO for Large R&D
Chief Staff Officer	Jul 1977	Center
Industrial College of the	Jul 1977	Student - Manageme
Armed Forces	AUG 1978	
Student		
Naval Aviation Logistic Center	Sep 1978	Support
Director, Management Systems Development Directorate	Apr 1981	
Naval Air Systems Command	Apr 1981	Acquisition
Program Manager, AMRAAM	Present	Maintenance Support

Number of years experience in acquisition, support and maintenance of weapons systems is 18.1 years. This does not include training or instructor duty, only on-the-job experience.

Captain USN
Program Manager, Antisubmarine Standoff Weapon

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Submarine School Student	Jun 1962 Dec 1962	
USS GRAYBACK (SSG 574) Missile Officer	Jan 1963 Jun 1964	Maintenance
USS REMORA (SS 487) Weapons Officer/Engineer	Jul 1964 Jul 1966	Maintenance
Submarine School Tactics Instructor	Aug 1966 Jun 1968	
USS BARBEL (SS 580) Operations Officer/Navigator	Jul 1968 Jul 1970	
Naval War College Instructor	Aug 1970 Jul 1972	
USS BARBEL (SS 580) Executive Officer	Aug 1972 Apr 1974	
Commander, Submarine Force US Pacific Fleet Student	Apr 1974 Jul 1974	
USS BARBEL (SS 580) Commanding Officer	Jul 1974 Aug 1976	Maintenance
Submarine Group 6 MK 48/Harpoon Training and Certification Officer	Aug 1976 Jun 1980	Maintenance Support
Submarine Squadron Four Chief Staff Officer	Jun 1980 Jul 1982	
Defense Systems Management College Student	Jul 1982 Dec 1982	Acquisition
Naval Sea Systems Command ASWSOW Program Manager	Dec 1982 Present	Acquisition Maintenance Support

Number of years experience in acquisition, support and maintenance of weapons systems is 12.0 years. This does not include training or instructor duty, only on-the-job experience.

Captain USN
Program Manager, ASPJ

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Naval Air Training Command	Jun 1958	
Student Naval Aviator	Dec 1959	
Airborne Early Warning	Dec 1959	Maintenance
Squadron 12	Jun 1963	
AEW Pilot		
Airframes/Asst Maintenance/		
Line Division Officer		
US Naval Post Graduate School	Jun 1963	PG Student
Student	Aug 1964	Engineering
Brown University	Aug 1964	PG Student
Student	Feb 1967	Physics
Antisubmarine Squadron 30	Feb 1967	
Replacement Pilot Training	Jun 1967	
Antisubmarine Squadron 39	Jun 1967	Maintenance
ASW Pilot	Sep 1968	
Maintenance Officer		
Antisubmarine Squadron 32	Sep 1968	
ASW Pilot	Jul 1969	
Administrative Officer		
Brown University	Jul 1969	PhD Student
PhD Student	Oct 1971	Physics
Office of Naval Research,	Oct 1971	Support
London	Jul 1975	
Liaison Officer, ASW/AEW		
Systems		
Naval Air Systems Command	Jul 1975	Acquisition
Asst Dir for Program	May 1979	Maintenance
Management, Avionics Div		Support
Assistant Secretary of the	May 1979	Acquisition
Navy (RE&S)	May 1981	
Special Assistant for Air		
Naval Electronics Systems	May 1981	Maintenance
Engineering Activity	Jul 1983	Support
Commanding Officer		
Naval Air Systems Command	Jul 1983	Acquisition
Program Manager, ASPJ	Present	Maintenance
		Support

Number of years experience in acquisition, support and maintenance of weapons systems is 18.2 years. This does not include training or instructor duty, only on-the-job experience.

Captain USN
Program Manager, MK50 Torpedo

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
USS HERBERT J. THOMAS (DD 833)	Aug 1957	Maintenance
Damage Control Asst/Engineer	Mar 1960	
Nuclear Power School	Mar 1960	
Student	Apr 1961	
Nuclear Power Training Unit	Apr 1961	Acquisition
Crew Chief Operator, Training Officer	Feb 1964	Support
USS BAINBRIDGE (CGN 25)	Feb 1964	Maintenance
Main Propulson Asst/Reactor Officer	Sep 1965	
Commander Cruisers and Destroyers	Sep 1965	
Pacific	Nov 1968	
Nuclear Power Training and Readiness Officer		
USS PORTERFIELD (DD 682)	Dec 1968	Maintenance
Executive/Commanding Officer	Nov 1969	
Destroyer Squadron ONE	Nov 1969	
Chief Staff Officer/Operations Officer	May 1971	
US Naval Postgraduate School	May 1971	PG Student
Student	Dec 1973	Underwater Physics
Destroyer School	Dec 1973	
Student	Feb 1974	
USS SOUTHERLAND (DD 743)	Feb 1974	Maintenance
Commanding Officer	Jul 1976	
Defense Systems Management	Jul 1976	Acquisition
College	Dec 1976	
Student		
Naval Sea Systems Command	Dec 1976	Acquisition
DPPM Lab Coordinator	Present	Maintenance
Program Manager TACTASS, Neartip, Program Manager MK50		Support

Number of years experience in acquisition, support and maintenance of weapons systems is 19.1 years. This does not include training or instructor duty, only on-the-job experience.

Colonel USMC
Program Manager, JVX Aircraft Program

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Naval Air Training Command	Sep 1959	
Student Naval Aviator	Feb 1961	
Marine Helicopter Squadron 261	Feb 1961	
Helicopter Pilot	Jun 1962	
Marine Helicopter Squadron 363	Jul 1962	
Instructor Pilot	Apr 1963	
Marine Fighter Squadron 312	May 1963	
Transition Training	Jun 1963	
Marine Fighter Squadron 232	Jul 1963	
Fighter Pilot	Sep 1964	
Flight Officer		
Marine Air Group 13	Oct 1964	
Assistant Operations Officer	Apr 1965	
Marine Helicopter Squadron 161	May 1965	
Helicopter Pilot	Nov 1965	
Camp Commander		
Marine Air Group 16	Dec 1965	
Assistant Operations Officer	May 1966	
US Naval Test Pilots School	Jun 1966	Acquisition
Student	Feb 1967	
Naval Air Test Center	Feb 1967	Maintenance
Test Pilot	Feb 1969	Acquisition
Officer in Charge, Rotary		
Branch, Weapons Systems Test		
Hunter Army Airfield	Feb 1969	
Attack Helicopter Training	Apr 1969	
Marine Observation Squadron 2	May 1969	Maintenance
Material Officer	Nov 1969	Support
Marine Helicopter Squadron 263	Dec 1969	
Executive Officer	Mar 1970	
US Naval Postgraduate School	Apr 1970	
Student	Jun 1971	
Navy Audit Service	Jul 1971	
Marine Corps Liaison Officer	Jun 1974	
Marine Corps Command and	Jul 1974	
Staff College	May 1975	
Student		
Marine Attack Helicopter	Jun 1975	Maintenance
Squadron 169	May 1977	Support
Commanding Officer		
Marine Air Group 36	Jun 1977	
Operations Officer	Jun 1978	
Industrial College of the	Jul 1978	
Armed Forces	May 1979	
Student		

ASSIGNMENTS AND DUTIES	FROM/TO	TOUR RELATIONSHIP
Office of the Secretary of Defense Tac Air Division, PA&E	Jun 1979 May 1981	Acquisition
Defense Systems Management College Student	May 1981 Dec 1981	Acquisition
Naval Air Systems Command Program Manager, HXM	Dec 1981 Jun 1982	Acquisition
US Army Aviation Research and Development Command Program Manager, JVX	Jun 1982 Oct 1982	Acquisition
Naval Air Systems Command Program Manager, JVX	Dec 1982 Present	Acquisition

Number of years experience in acquisition, support and maintenance of weapons systems is 11.0 years. This does not include training or instructor duty, only on-the-job experience.

General Stallings. Career summaries follow:

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Advanced Attack Helicopter (APACHE)	MG	PM, Adv Attack Helicopter*	Program Manager	11+
		Defense Logistics Agency**	Dep Dir, Contr Admin Svcs	15
		DCASR New York**	Commander	12
		PM, BLACK HAWK*	Project Manager	14
		Corpus Christi Army Depot**	Commander	25
		PM, COBRA*	Project Manager	23
		PM, COBRA A/C*	Product Manager	08
		Aviation Systems Command*	Spec Asst, PM, AAH	04
		520 Trans Bn HQ***	Battalion Cmd	12
		ODCOFS FORLOG**	Acft Log Spt Control Ofcr	14
		ODCSLOG, HQDA**	Chief, Avn Log Spt	03
		ODCOFS for Logistics**	Staff Officer	25
		58 Trans Battalion***	Chief, PA&O	06
		Avn Support Detachment***	Chief, SMI Br	02
		HHD 58 Trans Battalion***	Chief, SMI Br	04
		HQ, 7 Trans Aviation Group***	S-4 O	17
		HQ, 7 Trans Group***	Acft Supply Ofcr	06
		591 Trans Company***	Commanding Ofcr	17
		HHC TTC	F/W Aviator	07

LEGEND:
* Acquisition
** Support of Acquisition
*** Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
M1 Abrams Tank	COL	PM, M1 Abrams Tank*	Project Manager	05+
		National War College	Student	12
		ODCSRDA, HQDA**	Chief, Ground Combat Sys Div	10
		ODCSRDA, HQDA**	Chief, Tank Team Ground Combat Sys Div	08
		OPM, XM1 Tank System*	Chief, Wash Fld Office	29
		2nd Bn, 1st Tng Brigade***	Battalion Cdr	19
		Ofc Chief of Staff, HQDA**	OPS Ofcr, Tank Mgmt Office	07
		ODCSRDA, HQDA**	Acq Analyst	04
		ODCSRDA, HQDA**	Staff Officer	09
		2d Battalion, 5th Cavalry***	Executive Ofcr	04
		1st Bde, 1st Cavalry Div	Brigade S-3	09
		1st Bde, 1st Cavalry Div	Brigade S-1	04
		HQ, MASSTER Activity**	Military Test Analyst	20
		HQ, USA Recruiting Command	Plans Officer	08
		HQ, USA Recruiting Command	Recruiting Opns Officer	05
		AR Sqdrn 7th Air Cavalry***	XO CINSGCY	13
		1SON 9 CAV 1 CAV Division***	CO CINSGCY	17

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Position Location Reporting Sys/Tactical Information Distribution Sys (Army Data Distr System) (Joint Tactical Info Distr Sys)	COL	PM, Position Location Reporting Sys/Tactical Info Dist Sys*	Project Manager	13+
		USA Sys Engineering Intgr**	Deputy Director	18
		SC HHC Corps Signal***	Brigade Cdr	31
		HQ CPS HHC CPS***	Spec Asst, Chief of Staff	05
		SC Battalion HHC Air Def***	Battalion Cdr	32
		USA Element DCA Operations Center**	Chief, Computer Operations Div	34
		HQ DET CIV INST	Asst PMS	14
		USN Training Device Center**	Chief, Communications & Engr	15
		MACV HQ HQ CO**	Chief, Communications & Engr	11
		A Pictorial Center	Asst Chief, Prod Div	09
		HHC 11 Signal Group***	S-3	16
		HQ USA Strategic Command	Asst Chief, Future Plans Section	04
		HQ USA Strategic Command	Chief, Future Plans Section	03
		HQ USA Strategic Command	Project Ofcr	05
		USACCCA PAC***	Comm Sys Engr	03
		HHD 379 Signal Ballation***	Comm Sys Engr	08

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Army Helicopter Improvement Program	COL	PM, Army Helicopter Imp Prog*	Project Manager	25+
		ODCSRDA, HQDA**	Chief, Aviation Systems Div	14
		ODCSOPS, HQDA**	Staff Officer	10
		USA Space Program**	Deputy Director	16
		USAG 9 Infantry Div***	Spec Asst, Financial Mgmt	24
		ARN Battalion***	Battalion Cdr	18
		CACDA DYW/NASA**	Experimental Test Pilot	47
		CACDA DYW/NASA**	Aero Phy	09
		Aviation Company, Assualt Helicopter***	Commander	06
		HHC 11th Aviation Group***	Asst S-3	02
		USA CDCINS	Opn Eval	16
		21 USAAM Detachment***	Detachment Cdr	08
		528 USA Artillery Group***	Asst S-3	03
		Battery C 6BN 56 Artillery***	Battery Cdr	05
		HQ 97 Artillery Group***	Opn Officer	07

LEGEND:
* Acquisition
** Support of Acquisition
*** Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Multi-Service Communications Systems (AN/TTC-39)	COL	PM, Multi-Service Commo Sys*	Project Manager	12+
		Office TRI-TAC*	Asst Dep Dir	18
		USAREC District Recruiting Command	Commander	25
		Signal Corps Battalion HHD***	Battalion Cdr	18
		Signal Group HHD***	S-4	05
		US/UK Exchange Program	Chief Instructor	25
		OPM, Army Tactical Data Sys*	Project Officer	24
		Battalion 1 Signal Brigade***	Deputy Commander	07
		Brigade 1 Cavalry Div HHC***	Brigade Signal Officer	04
		Ofc Chief of Staff, Army**	C-E Staff Ofcr	20
		Ofc Chief of Staff, Army**	DASSO Proj MALLARD	15
		FAC 1 Signal Brigade***	Troop Commander	05
		USA Strategic Command***	OIC Facilities	06
		USAG***	Post Signal Ofcr	08
		USAG***	Dep Post Signal Officer	08
		USA PRIM SIG RLY***	Fixed Station Radio Operator	12
		Recruiting Detachment	Commander	04
		USA PRIM SIG RLY***	OIC Trans Sta	14
		USA PRIM SIG RLY***	FS Comm Cen Ofcr	13
		268 Signal Company/2 Infantry Brigade***	Comm Cen Ofcr	02

LEGEND:

* Acquisition
** Support of Acquisition
*** Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Bradley Fighting Vehicle Systems	BG	PM, Bradley Fighting Vehicle Systems*	Program Manager	15+
		PM, M60 Tanks*	Project Manager	22
		US Red River Army Depot**	Commander	39
		RGN 8 USA Readiness	Read Coordinator	21
		ODCSRDA, HQDA**	Staff Officer	18
		ODCSLOG, HQDA***	Action Officer	08
		CS Battalion HQ Maint Spt***	Battalion Cdr	20
		CS HBD Support Command***	Battalion Cdr	16
		USA CDCISA**	Dep Dir, Anal Group 1 ORSA	45
		Maintenance Battalion 11th Infantry Division***	Material Officer	13
		Staff & Faculty USMA	Instructor	36
		Student Detachment USA Ordnance Center***	Spec Asst to Chief, Opns	03
		Company A 707 Ordnance 7th Infantry Division***	Maintenance Platoon Leader	03
		1 BG 31 Infantry Division***	Platoon Leader CO A	03
		HHC 1 ABG 187 Infantry***	Recon Platoon Leader	16
		1 ABG 187 Infantry***	Recon Platoon Leader	07

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
BLACK HAWK	COL	PM, BLACK HAWK*	Project Manager	13+
		PM, BLACK HAWK*	Asst PM for Log	11
		Trans Corps Battalion HHD MOTOR***	Battalion Cdr	30
		ODCSRDA, HQDA**	Staff Officer Avn Sys Div	29
		USA Operational Test and Evaluation Agency**	Test Eval Ofcr	19
		USA Operational Test and Evaluation Agency**	Log Staff Ofcr	13
		USA Operational Test and Evaluation Agency**	Avn Staff Ofcr	03
		HQ, USA Materiel Command**	Project Officer	17
		ARHHTCAVRGT 398TC 11***	Commander	17
		79 Transportation Company***	Exec Ofcr, Prod Con Opns	05
		HHC 15TC Battalion 1 Cavalry Division***	Commander	23
		HHC 15TC Battalion 1 Cavalry Division***	S-4	06
		HQ 181 Trans Battalion***	Asst S-3	04
		HQ 181 Trans Battalion***	S-4	05
		HQ 181 Trans Battalion***	Asst S-4	02
		377 Trans Company***	Company Cdr	12

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
CH-47	COL	PM, CH-47*	Project Manager	17+
		ODCSRDA, HQDA**	Staff Officer Avn Sys Div	35
		USA AF Staff College	Dir, Analysis Research Sys Studies	18
		USA AF Staff College	Director, Joint Svc Planning	06
		USA AF Staff College	Faculty Advisor	12
		Langley Lewis Eustis**	Aero Engineer	31
		USAAM Rsch-Dev**	Aero Engineer	28
		USA Aviations Mat**	Aero Engineer	12
		TC Battalion Acft Mnt Spt***	Battalion XO	12
		USA Transportation School***	Training Ofcr	05
		HHC Staff Battalion TSCH Brigade***	Chief, HIE Br	03
		HHC Staff Battalion TSCH Brigade***	Chief, Elec Sec	16
		394 Trans Detachment***	Commander	03
		18 Aviation Company***	Platoon Cdr	06
		18 Aviation Company***	F/W Aviator and Maint Ofcr	03
		508 ASA Group***	Aviator	13
		HHC Battery***	Adjutant	16
		HHC Battery***	Platoon Leader	10

LEGEND:
* Acquisition
** Support of Acquisition
*** Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Joint Tactical Missile System	Dr. (Acting PM)			2+
	COL	PM, Joint Tactical Msl Sys*	Project Manager	08
		PM, PERSHING*	Project Manager	71
		USA Student Detachment	Student	11
		USA Missile Mat Readiness	Insp General	16
		US Army Missile Command	Insp General	06
		ODCSRDA, HQDA**	Chief, Congressional	25
		ODCSRDA, HQDA**	MBR AMARC	06
		ODCSRDA, HQDA**	Staff Officer	17
		CONARC HQ Field	Military College Faculty Member	33
		USMACV***	Log Officer	12
		USAELMOSD/Bangkok***	Proj Ofcr, Opns Analyst	30
		PM, NIKE X*	Proj Coordinator	29
		USA Picatinny Arsenal**	Deputy Chief, Rel Br	02
		HHD USARGMA Redstone**	R&D Coordinator	23
		HHD USARGMA**	Ord GM Ofcr	15
		10th AAA Missile Battalion***	Platoon Leader	26
		10th AAA Missile Battalion***	Btry Asst LCHR	06
		10th AAA Missile Battalion***	Platoon Leader	12

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Cannon Artillery Weapons System (COPPERHEAD and Howitzer Improvement Program)	COL	PM, Cannon Arty Weapons Sys*	Project Manager	40+
		USA Rock Island Arsenal***	Commander	27
		USA Armament Mat Read Cmd**	Director, Mat Mgmt	13
		Armor Division HHC***	G4 Division	26
		HQ 123d Maint Battalion***	Battalion Cdr	15
		Inspector General, HQDA	Insp General	37
		USA HQ USARV OF***	Chief, REV & ANALBE Mgmt Br	04
		Support Cmd 1 Cavalry Div***	Commander 3d FSSE	07
		USA Ordnance Ctr & School	Instructor	12
		HHC SCH Brigade USAOC&S***	Chief, Fire Control Div	30
		79 Ordnance Battalion M&S***	Armament Ofcr	18
		HQ, USA Vietnam***	Armament Maint Ofcr	02
		HQ, USA Weapon Command**	Spec Asst, Acft Weapons	17
		USA Ordnance Armory**	Asst to Chief R&D	34
		53 Ordnance Company***	Shop Officer	13
		53 Ordancne Company***	Platoon Leader	14

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
HELLFIRE	COL	PM, HELLFIRE*	Project Manager	06+
		US Army War College Student Detachment	Student	12
		Iowa Army Ammunition Plant**	Commander	24
		PM, Cannon Arty Weapons Sys*	Asst PM, Guided Projectile	11
		PM, Cannon Arty Weapons Sys*	Asst PM, 8 Inch Guided Proj	12
		PM, Cannon Arty Weapons Sys*	PM, 155mm Proj	21
		PM, Cannon Arty Weapons Sys*	R&D Coordinator Tech Mgmt Div	16
		PM, Cannon Arty Weapons Sys*	R&D Coordinator	07
		HQ HHC Army	Asst Insp General-IG Div	12
		S-Faculty USMA	Asst Professor, Engineering	24
		S-Faculty USMA	Instructor-Engr	12
		HHC USA ASCOM DEP**	Deputy Director Supply & Trans	04
		HHC USA ASCOM DEP**	Director, Supply & Trans	09
		HSA DPO Savana***	Signal Officer	02
		HSA DPO Savana***	Sec Con Ofcr	10
		619 Ordnance Company***	GM Staff Ofcr	19
		619 Ordnance Company***	Shop Officer	12
		619 Ordnance Company***	Supply Officer	03
		619 Ordnance Company***	Quality Assur Insp Ofcr	10

LEGEND:
- * Acquisition
- ** Support of Acquisition
- *** Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Multiple Launch Rocket System (Terminal Guidance Warhead)	COL	PM, Multiple Launch Rckt Sys*	Project Manager	12+
		HQ, US Army Missile Command*	Chief of Staff	09
		PM, PATRIOT*	Deputy NATO PM	24
		USA Element OSD*	R&D Program Manager	43
		USA High Energy Laser*	R&D Coordinator - APTEC	02
		Missile Laboratory*	R&D Coordinator - APTEC	26
		Civ Student Detachment Office	ACOPS	25
		USAR Supply Command***	ACOPS	23
		HQ, US Army Missile Command	Aide-De-Camp	48
		HHC STC USAMMCS***	Instructor AMO Svc	02
		USMAC 21 Infantry Division***	Asst G4 Advisor	04
		US Military Assistance Cmd	Asst G2 Advisor 21 Infantry	06
		US Military Assistance Cmd	Senior Asst Cen Advisor	04
		MB 1 Airborne Brigade 187 INF	Liaison Officer	21

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
PATRIOT	BG	PM, PATRIOT*	Project Manager	14+
		Air Defense HHD HHD***	Deputy Commander	18
		Air Defense HHD Group***	Group Commander	34
		DCSOPS, HQDA***	Army Chair, NATO	16
		Air Defense HHD***	Division ADA Cdr	04
		USAADS TSB SF Battalion HH***	Director S&C Div	17
		Air Defense HHB 2 Battalion 71st ADA***	Battalion Cdr	23
		USA Element, OSD**	OR SA	23
		DCS Military Operations***	Staff Officer	12
		USMAC***	Asst G3 Adv Planning	32
		USMAC***	G3 Air Adv	08
		HQ 3 Msl Battalion 7 Arty***	Battalion S-4	19
		B Bty 3 Battalion 7 Arty***	Battery Cdr	20
		HQ 3 Msl Battalion 7 Arty***	Missile Maint Officer	02
		D Battery 6 Battalion 517 Arty***	Exec Officer	04
		C Battery 6 Battalion 562 Arty***	Exec Officer	02
		C Battery 6 Battalion 562 Arty***	Platoon Leader	08
		HD Support Troop 815 Engr Battalion***	Project Officer	07

LEGEND:
* Acquisition
** Support of Acquisition
*** Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
PERSHING	COL	PM, PERSHING*	Project Manager	08+
		Missile Intelligence Agency**	Deputy Director	09
		BMD Systems Command*	Deputy PM, Sentry Project	14
		BMD Systems Command*	Deputy, Load Project Div	29
		BMD Systems Command*	R&D Coordinator	11
		Infantry Division Arty HHB	Asst Fire Spt Coordinator	20
		Field Artillery HHB 3rd Battalion***	Asst Exec Ofcr	01
		Field Artillery D Battery 3rd Battalion***	Battery Cdr	15
		3ROTCRGN Spring Col	Asst PMS	25
		HQ, USA Project MASSTER**	Scenario Writer	21
		HQ, USA Project MASSTER**	Project Officer Range Inst Br	04
		USACDC HQ Fort Belvoir**	Liaison Officer	13
		Artillery HQ 1st Battalion***	S-3	04
		Artillery Group***	Commo Officer	04
		Airborne Division HHC 1 32 Artillery	Brigade Liaison Officer	02
		USA Combat Development Cmd**	Missile Staff Officer, Msl Rockets Branch	23
		Off Stu Battery USAAMS	Artillery Tac Instructor	01
		MAAG Vietnam***	Asst Battalion Adv Arty 23 Infantry Div	05
		Artillery 1st Msl Command***	Platoon Cdr	05
		Artillery 1st Msl Command***	Commo Officer	06

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Tactical Airborne Remotely Piloted Vehicle/Drone System	COL	PM, Tact Airborne Remotely Piloted Veh/Drone Sys*	Project Manager	07+
		Aviation Troop Brigade 11th Company**	TRADOC System Manager, Scout Helicopters	46
		DCSOPS, HQDA**	Staff Officer	37
		Field Artillery Battalion 1 HQ-Svc BT***	Battalion Cdr	19
		Field Arty HHB Div Arty***	S-3	06
		Field Artillery Battalion 1 HQ-Svc BT***	Exec Officer	17
		HHC 1st Cavalry Division***	Asst G3	13
		D Troop 17 Cavalry***	Commander	04
		Aviation Brigade HHC***	G3 Training Ofcr	03
		Aviation Brigade Company B 101 Airborne Division***	Commander	03
		Aviation Battalion Company A 101 Airborne Division***	Commander	02
		Aviation Bn HHC Air M***	Battalion S-3	02
		USAAVNS HHC***	Trng Lit Ofcr	30
		USAAVNS Regiment***	Flight Commander	04
		USAAVNS Regiment***	Flight Instr	06
		HQ 1 Aviation Brigade***	Asst S-3 Ofcr	05
		200 Assualt Spt Helicopter Company***	Platoon Cdr	04
		USAAVNS***	Flight Instr	05

LEGEND:
* Acquisition
** Support of Acquisition
*** Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Division Air Defense Gun System (SGT YORK)	COL	PM, Division Air Defense Gun*	Project Manager	01+
		PM, Chaparral/FAAR*	Project Manager	23
		ODCSRDA, HQDA**	Chief, Munitions Division	15
		USA ICAF Students	Program Analyst OSD	06
		HHC 1st Battalion School Brigade***	Commander	18
		Office Chief of Staff, HQDA**	Operations Rsch Analyst	18
		Defense Sys Mgmt School**	Deputy Director, Dept of Sys Mgt	09
		Defense Sys Mgmt School**	Deputy Proj Mgr	22
		Defense Attache Office	Exec Officer	06
		Element USA-JUSMAG-THI***	Maintenance Ofcr	06
		PM, SAM-D*	Rsch-Tech Opns Officer	15
		JUSMAG Thailand***	Log Officer	06
		JUSMAG Thailand***	Opns Plans Ofcr	11
		USACDCADA**	Warhead Proj Officer	34
		USMAC 5 Infantry Division 3 Corps***	Ordance Adv 5 Inf Div	13
		SOC OC&S	Spec Asst to Dir	12
		8A DPT CMD/ASCOM DPO***	Asst Chief, Msl & Wpns Br	02
		HHC DEP COMD	Asst Chief, USAASCOM	11
		US Army Msl Command PMO**	Project Officer	14
		Battery B1 Missile Battalion 71 Artillery***	LCHR Platoon Leader	04

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Air Defense Command & Control System (Short Range Air Defense Command & Control)	COL	PM, Air Defense Cmd & Cntl*	Project Manager	13+
		US Army DARCOM HTTB**	Deputy Test Dir	16
		Infantry Division HHC Mech***	Asst Chief of Staff G4	25
		PM, FIREFINDER*	Asst PM	19
		PM, MALOR*	Asst PM	15
		Lab USA CSTA**	R&D Coordinator	12
		Sperry Gyroscope Division*	Dep Prog Mgr	11
		USMTMSA-USEUCOM***	Opns Officer	19
		USMTMSA-USEUCOM***	Supply Mgt Ofcr	03
		Element USA-USMTM SARB***	Area Log Adv	04
		S-Faculty USMA	Asst Professor	37
		Staff&Faculty West Point	Instructor, Dep ES&GS	12
		US Military Assignment Cmd	Sub Sec AD PBSZ	43
		US Army Missile Command**	Test Opns Ofcr	07
		US Army Missile Command**	Indust Engr	04
		HH Detachment USA Msl Cmd**	Indust Engr	10
		Company A 708 Ordnance Battalion 8 Infantry Div***	Platoon Leader & Asst Adjutant	04
		Company A 708 Ordnance Battalion***	Supply Platoon Leader	11

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
Single Channel Ground & Airborne Radio Subsystem	COL	PM, Single Channel Ground & Airborne Radio Subsystem*	Project Manager	43+
		PM, DCS (Army)*	Dep Proj Mgr	06
		PM, Army Tact Commo Sys*	R&D Coordinator	06
		Signal Corps Battalion HHC***	Commander	29
		Ofc Chief of Staff, HQDA**	ADP Officer	36
		Ofc Asst Vice Chf of Staff**	Mil Plns Ofcr	02
		51st Signal Battalion***	Exec Officer	15
		Staff&Faculty West Point	Instructor Dept of Physics	35
		HQ 1 Signal Brigade USASCC	Secy of Gen Stf	11
		HQ 1 Signal Brigade USASCC***	Proj Mgr COMCEN	02
		HQ 4 USA	Aide-De-Camp	08
		HQ 7 USA	Aide-De-Camp	05
		Company D 440 Signal Battalion***	Commander	11
		Company D 440 Signal Battalion***	Platoon Leader	05
		Company B 25 Signal Bn***	Platoon Leader	15

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics

QUESTIONS SUBMITTED BY SENATOR SAM NUNN

CAREER PATHS FOR PROCUREMENT MANAGEMENT

Senator NUNN. General Stallings, in your prepared statement you say that the statutory tour length of Program Managers of major SAR systems will enhance "continuity, accountability and cost control."

In your view, will this statutory tour length impede the selections and assignments of high quality officers to serve in Program Manager positions?

General STALLINGS. No. We find that our more successful PMs currently extend in place beyond the original 2-3 year tour length or they request another PM assignment immediately. Two years ago, our average PM tour length was 2.6 years. The average tenure for PMs department in 1984 was 3.9 years. Our (AMC) current plans are to use the four year tour standard for all PMs not just those for major systems. The challenge of the job and continued push towards PM accepted as equivalent to Command should foster a longer tour length across the board. Command will continue to be the most potent intra-Army competition for top quality PMs but we're working on turning that around.

Senator NUNN. What administrative procedures have been established within the Army to carry out the statutory tour length for program managers established in the fiscal year 1985 Defense Authorization Act?

General STALLINGS. Procedurally, our implementation will be simple and swift. Central DA board selections are currently made. Selectees will be offered the job with up front knowledge that a four year tour is mandatory. If a selectee declines he is to be removed from candidate roles for both Command and Project Management. While there are probable exceptions to this rule, i.e., promotion while in the job, retirement, or need to change based on development status (milestone achievement) of the hardware involved, we expect such exceptions to be few.

PROGRAM MANAGER TOUR LENGTH

Senator NUNN. Admiral Sansone, the Navy had a policy of requiring four-year tours from program managers before the statutory tour length for program managers was included in the fiscal year 1985 Defense Authorization Act.

What prompted the Navy to establish this four-year tour requirement for Navy program managers?

Rear Admiral SANSONE. When DOD Directive 5000.23 on System Acquisition Management Careers was signed in November 1974 by then Deputy Secretary of Defense Clements, he also wrote a memorandum to each of the Service Secretaries. He emphasized the importance of the directive and continued with, "I can foresee no reason that a program manager's tour should be less than four years." The Navy has considered that policy and has included it in all its directives concerning selection of program managers.

THE TOUR POLICY MEETING OBJECTIVES

Senator NUNN. In your opinion, is this minimum tour requirement meeting its objectives?

Rear Admiral SANSONE. Yes, our planned rotation dates (PRD's) for our major program managers is a minimum of four years. Going into the job they know this and it has provided greater program stability for the Navy.

EFFECT OF FOUR-YEAR TOUR

Senator NUNN. Has this four-year tour requirement impeded the selection and assignment of high quality Naval officers to program manager positions?

Rear Admiral SANSONE. No, on the contrary. With the Navy's selection process for program manager's only the highest quality candidates are board selected to contend for program manager and the most qualified from among these is chosen. To my knowledge no officer selected to be a candidate for program manager has officially requested to be removed from the list.

STATUTORY TOUR LENGTH

Senator NUNN. General Steere, what administrative procedures have been set up in the Air Force to carry out the statutory tour length for program managers of SAR systems established in the fiscal year 1985 Defense Authorization Act?

General STEERE. The Air Force has implemented the following administrative procedures to carry out the statutory tour length for program managers for SAR systems established in the FY 1985 Defense Authorization Act:

The Air Force Systems Command Commander personnally selects the SAR program managers, with recommendations from the field commanders, to place the best person in each of these key positions.

The officer assignment regulation, AFR 36-20, is being changed to include a code in the Advanced Personnel Data System (ADPS) that will prevent a SAR program manager receiving unauthorized orders. When a SAR program manager is assigned he will be given an assignment availability code in the personnel computer system, ADPS, that says he cannot be reassigned for four years. This code will block the SAR program manager from reassignment for four years unless the block is overridden for one of the two authorized exceptions—a program manager change at a major milestone or a program manager change exception approved by the Secretary of the Air Force.

In addition to the automated system, each SAR program manager is manually tracked by the Systems Command Assistant for Senior Officer Management. A list of SAR programs, their managers, with date assigned as program manager, and the next major milestone is maintained to prevent a SAR program manager from reassignment unless the statutory tour criteria has been fulfilled.

QUALITY OF AIR FORCE OFFICERS

Senator NUNN. In your view, is this statutory tour length impeding the selection and assignment of high quality Air Force officers to program managers jobs?

General STEERE. The statutory tour length has not impeded the selection and assignment of high quality Air Force officers to program manager jobs.

As long as we can assure the potential SAR program managers that they will not be penalized because they are required to stay at a base or in a job, we will continue to have the best people vying to be SAR program managers.

[Whereupon, at 3:19 p.m., the task force adjourned, to reconvene at 10 a.m., Tuesday, Dec. 18, 1984.]

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SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
STINGER	COL	PM, STINGER*	Project Manager	28+
		PM, PATRIOT*	Asst PM, Rqmts Test Eval	20
		PM, PATRIOT*	Asst PM, Btlfld Integration	11
		PM, PATRIOT*	Asst PM, Rqmts	06
		Airborne Division HHE Air A	Spec Asst to Chief of Staff	17
		Airborne Division 02 Brigade Air A		02
		1 ADA Battalion HHB		18
		Air Defense Brigade HHB***	Brigade S-3	08
		Ofc PM Missile Command*	PM Staff Ofcr	18
		RDE & Missile System**	R&D Coordinator	14
		HQ, US Army Missile Command**	R&D Coordinator	04
		Element USA SUP MR3	TIG	05
		HQ US Army Vietnam	Asst Insp Gen	03
		AG Company 101 Admin	TIG	05
		USAE FC DASA	Tech Opns Ofcr	37
		USAE FC DASA	Test LnO	12
		B Battery S&F SSC AADS	Chief, Opns Br	30
		HQ 7 CRP Artillery	Asst S-2	16
		HQ 7 CRP Artillery	S-2	02

LEGEND:
- * Acquisition
- ** Support of Acquisition
- *** Maintenance/Logistics

SUMMARY OF CAREER EXPERIENCE

PROJECT TITLE	PM (As of 13 Dec 84)	CAREER EXPERIENCE	DUTY TITLE	TENURE (In Months)
TOW	COL	PM, TOW*	Project Manager	08+
		PM, Joint Tact Missile Sys*	Project Manager	13
		Defense Nuclear Agency**	Chief, TNF SURV SEC SAF DIV	15
		Battery C Staff Fac Bn**	Dep Dir, CSWS	10
		PM, Cannon Arty Weapons Sys*	Asst PM, 155mm	33
		Field Artillery Battalion 01 HHB, 155M***	Commander	23
		HQ HHC CPS Artillery***	S-4	11
		HQ HHC CPS Airborne	Asst G-1	08
		Field Artillery Battalion 01 HQ Svc BT***	Exec Officer	11
		MACV IV Corps	DSA	12
		Ofc Asst Vice Chief of Staff	Mil Plng Ofcr	15
		USA Engineer School	Arty Instructor	31
		Battery B 1 Bn 5 Arth***	Battery Cdr	07
		US Military Assistance Cmd***	Asst S-3 Adv	04
		US Military Assistance Cmd***	Asst G-3 Adv	02
		US Military Assistance Cmd	Sub Sec Adv	06
		3RCN Squadron 2 Armored Cavalry***	Commander	24
		HQ 7A Support Command	Aide-De-Camp	10
		3RCN Squadron 2 Armored Cavalry***	Battery ExO	05

LEGEND:

*	Acquisition
**	Support of Acquisition
***	Maintenance/Logistics